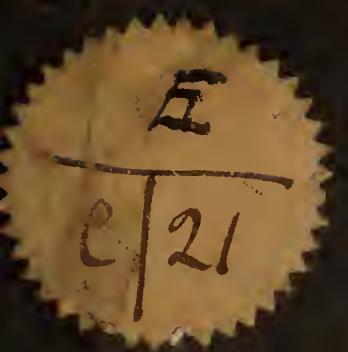


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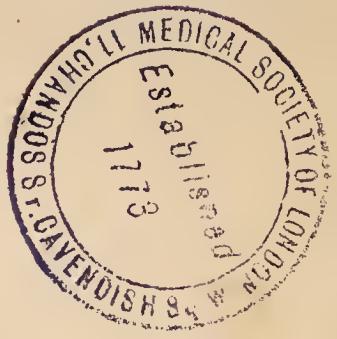
HALL, M.

ON SOME
PUERPERAL DISEASES.



Robert Norton
October 15th 1854

ON SOME



PUERPERAL DISEASES;

BEING

THE SECOND PART OF COMMENTARIES ON DISEASES OF FEMALES,

PUBLISHED IN MDCCCXXVI, AND INTENDED FOR

REPUBLICATION WITH ADDITIONS;

BY MARSHALL HALL, M.D., F.R.S.

&c. &c.

LONDON :

MDCCCXXXIV.

The reader is referred to the Second Edition of my Commentaries on the Diseases of Females, Introduction, pp. 8—10; and to the Medical Gazette, v. vii, p. 462, and v. ix, p. 419.

He will find the subjects treated of in these pages the *most usual* occurrences amongst Puerperal Diseases in *private practice*: they possess an interest to the general practitioner far beyond that of some other formidable diseases, chiefly found in *Hospitals*, and in low and crowded situations.

M. H.

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PART SECOND.

OF SOME DISEASES INCIDENT TO THE
PUERPERAL STATE.

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CHAPTER I.

OF PUEPERAL DISEASES IN GENERAL.

IF, as I have observed in the former part of this Volume, many circumstances concur to render the disorders of female youth peculiar, this is still more emphatically true of puerperal diseases. This fact will appear sufficiently obvious upon a simple enumeration of the principal causes of these diseases ; and still more so, when it is considered that, in general, two or more of these causes co-operate together to produce the cases which present themselves to our notice in actual practice.

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In both these points of view, indeed, the subject of puerperal diseases appears to me to present a peculiar object of study to the physician. In scarcely any other cases do so many and such various circumstances require to be taken into the consideration at once, as in puerperal diseases.

This class of diseases may be considered as embracing all those morbid affections which arise out of the state of pregnancy, of child-bearing, or of lactation. They may be divided into those which occur in the earlier, and in the later, periods of pregnancy, — immediately before, and after, and during the act of parturition, — during what is termed the puerperal state, — and during the period of lactation.

In the early period of pregnancy many organs suffer, in consequence of the source of irritation then set up in the uterine system. These affections are, for the most part, well known, and do not come within the design of this work, the object of which is to treat only of certain morbid affections, which occur in the puerperal state, and which appear to me not hitherto to

have received the degree of consideration which is due to them.

In the later periods of pregnancy several causes combine their influence, especially to endanger the state of the brain. It is upon the conjoined and separate operation of these causes that our attention should be particularly fixed, in regard to the diseases of this period; for it is frequently by their co-operation alone that their morbid influence upon the brain is brought into activity, whilst it may occur, afterwards, that one or even several of these causes may be removed, and yet a remaining one may renew or continue the morbid effect upon the brain, which they had conjointly begun. The causes which co-operate in the last period of utero-gestation, in inducing a morbid state of the brain, are chiefly uterine and intestinal irritation, concurring with the actual pressure of the gravid uterus, upon the various viscera and vessels situated behind it, and the state of plethora of the vascular system especially, occasioned by this pressure.

During parturition the contractile efforts of the uterus and of the abdominal muscles, add

another source of danger to those already mentioned ; and it is at this period that the brain is most subjected to fulness and pressure, and that convulsions or apoplexy are apt to occur.

Several sources of danger are removed when delivery has taken place ; and yet this is not always sufficient to protect the patient from an attack of convulsion ; for this terrible affection has first occurred even after delivery had been effected. In this case, especially, I suspect that a state of intestinal load and irritation has been the exciting cause of the attack of convulsion. And this observation confirms the remark already made, that when several causes have co-operated to induce a state of danger, some may be removed, and yet, if one remain, it may lead to the most disastrous events. This peculiarity in the study of puerperal diseases, cannot be pointed out too often, or too strongly.

Convulsions do occasionally occur after delivery, even although the system be in a state of exhaustion from haemorrhagy. The state of general exhaustion is not, I believe, incompatible with a state of fulness of the brain ; but

this kind of convulsions will be found, I think, frequently to involve also a state of intestinal load and irritation.

But immediately after delivery, the danger may arise more directly and simply, from a state of inanition and exhaustion, the effects of an emptied condition of the uterus and abdomen, of abstracted pressure upon the viscera and vessels along the spine, and perhaps of loss of blood.

To these sources of danger, after delivery, must also be added, the effects, perhaps, of protracted suffering, of violent pain, of mental alarm, and of what may be termed the 'shock' of parturition.

There is another series of puerperal affections which do not occur, for the most part, until some hours at least after delivery. These affections consist principally in uterine or peritoneal inflammation, in the effects of intestinal irritation, in the effects of loss of blood, or in two or more of these combined. There are two other sources of irritation, in the condition of the mammae, and occasionally of the uterus; and there is

that terrible disease, the epidemic puerperal fever.

Considering the important and sudden change which takes place in the condition of the uterus, in parturition, we cannot be surprised that this organ should frequently be the subject of inflammation in the puerperal state. Neither can it be matter of surprise, that its appendages, the adjacent viscera, and the peritonæum at large should, not unfrequently, participate in this morbid condition. And when we further consider the degree of violence to which the brain has been subjected, during parturition, we must be led to expect that this important organ should be left by that process in a state of proneness to inflammation ; and this is precisely the case ; for, next to the viscera of the abdominal cavity, the brain is, perhaps, the organ which is most apt to become affected by puerperal inflammation.

There is another not less fertile source of puerperal disease, in the state of the alimentary canal after delivery. This state consists, in general, in a loaded or disordered condition of the large intestines ; but sometimes, also, in im-

proper things taken into the stomach. It is most important to observe, that the effects of stomachal or intestinal irritation, are very similar to those of inflammation, as it affects the head or abdomen ; for on the just diagnosis of these cases depends the proper application of the remedies.

Similar observations apply to the effects of loss of blood, when these are of the remote character, and attended by the phenomena of re-action. In this case, the head is apt to be so affected as to lead to the idea of inflammation of the brain ; and the heart, so as to present the symptoms of disease of this vital organ.

But it is rare that these sources of disease act thus distinctly ; it is far more usual to observe them co-operating together to produce a mixed case, and it is in such complicated cases that all the attention and energies of the mind are required to appreciate the influence of each, and to adapt the remedies to this complicated form of disease.

There is, not unfrequently, also, a source of irritation in the state of the uterus itself. A certain degree of after-pain is usual in almost every

case ; but a state of irritation and pain are frequently kept up by the presence of clots of blood, and the efforts for their expulsion. This state of the uterus is full of dangers ; not in itself, but by masking and concealing the beginning of dangerous diseases ; pain of an inflammatory kind is too apt to be neglected, under the impression that it is but the usual after-pain.

A similar remark may be made in regard to the irritation excited in the establishment of the secretion of the milk. This process is apt to be attended by pain, fever, and affection of the head, which frequently mask the beginnings of puerperal disease.

Both these sources of irritation concur to add complexity to the character, and difficulty to the diagnosis of puerperal diseases, and to constitute that peculiarity of this study to which I have already alluded.

The first of these classes of disease might perhaps be denominated parturient, whilst the second might be distinguished by the epithet puerperal ; the former occurring chiefly in or near the act of parturition ; the latter, usually,

some hours afterwards. There is a third class of morbid affections, which follow still more remotely upon child-bearing, and which consist, principally, in the more continued effects of intestinal disorder or of loss of blood, and issue, for the most part, in an inability to support the drain occasioned by lactation.

A fourth series of puerperal maladies, using this term in its most extended sense, arises out of undue lactation itself. They consist in the various forms and effects of exhaustion, and constitute a most important and interesting subject for renewed inquiry ; for I believe them not to be at present by any means fully understood.

There is still another consideration which is full of interest, in regard to puerperal diseases,—namely, the state of health of the patient previously to her confinement. That which most frequently modifies the puerperal state, is disorder of the general health, of the various characters described in the first part of this work. It frequently occurs, from such a state of general disorder, that the recovery, after confinement, is tardy, the secretion of milk scanty, or even morbid, affecting the health of the infant, and

that there are many local affections, especially of the head or of the heart, which are full of pain and suffering.

I have now taken a rapid survey of the principal causes of puerperal diseases. It may be truly said, that many of these causes co-operate in every case ; but it is also true, that each puerperal disease is to be referred to one or two of these causes more especially. Every case of puerperal affection may, therefore, be considered as a case of modified disease, requiring that the mind of the physician be active and comprehensive, so as to embrace the numerous circumstances of the disease. This is true in a degree which scarcely obtains in any other class of diseases ; and it is on this account that I have represented the study of puerperal diseases as requiring peculiar habits of inquiry and investigation.

CHAPTER II.

OF THE MORBID AFFECTIONS WHICH OCCUR IN THE
PARTURIENT STATE.

I HAVE adopted the term parturient, to express the condition of a person just before, just after, and during the act of parturition. It is my intention in this chapter, briefly to notice the morbid tendencies of this state, as a necessary introduction to the more detailed account of some of the morbid affections which occur in that, which may perhaps be more properly termed puerperal. The distinction between the parturient and the puerperal states will be found to be at least of great practical utility.

I have cursorily alluded, in the preceding chapter, to the principal causes of apoplexy and convulsions, as they occur in the last stage of utero-gestation, and in the act of parturition. It is my present object to enter into this important question with somewhat more detail.

The first cause which I enumerated as conducing to these affections of the brain, was uterine irritation. That this species of irritation does, indeed, dispose to disease of the brain, is sufficiently obvious from the occasional occurrence of convulsions in cases even of dysmenorrhœa or painful menstruation.

A second exciting cause of affection of the brain, probably not very different in its nature from the former, is the parturient efforts of the uterus when labour has begun. The effects of labour-pain upon the vascular system of the head is sufficiently seen in the flushed state of the countenance. And the attack, or the recurrence of convulsion, not unfrequently takes place with each uterine effort.

With the uterine efforts must, however, be conjoined those of the abdominal and other muscles, in our estimation of the influence of labour-pains upon the state of the brain.

The third cause of affection of the head in the parturient state, is stomachal or intestinal load or irritation. It appears almost unnecessary to adduce any example of the influence of these causes upon the vascular system and

nervous origins within the head. The presence of indigestible substances in the stomach, and of indurated or otherwise morbid fæcal matters in the large intestines, are amongst the most usual causes of apoplexy and convulsions in those who are predisposed to these affections, and especially in the puerperal state. The late Dr. John Clarke published an interesting and important paper *, to which I shall have occasion to revert hereafter, upon the morbid influence of oysters, taken at this period, upon the brain; and it cannot be doubted that other indigestible substances have frequently, perhaps unsuspectedly, produced the same deleterious effects. One of these effects was convulsion. And it is to be particularly remarked, that the cases published by Dr. Clarke all occurred after delivery, and of course even after some of the predisposing causes of puerperal convulsion had ceased to operate.

But a still more frequent concurrent cause of convulsion, or of apoplexy, in the parturient state, is a loaded condition of the large in-

* Transactions of the College of Physicians, vol. v. p. 109.

testines. The operation of this cause is frequently made obvious by the effects of purgative medicines and enemata, in these cases, both in the relief they effect in the symptoms of affection of the brain, and in the character of the alvine evacuations; the quantity of scybalous fæces which have thus been evacuated, in some instances, would appear incredible, were not the torpid and dilated condition of the intestine taken into the account.

Nor can there be any doubt, that the gravid uterus itself acts, by its size, and by its pressure upon the descending aorta, in inducing fulness of the vessels of the brain, in the last period of utero-gestation. It is on this principle, that delivery frequently secures the patient against the recurrence of the fit of convulsion. When the pressure of the gravid uterus falls more particularly upon the vena cava, the effect of interrupted circulation is, of course, observed in the lower extremities, chiefly under the form of œdema, but perhaps of phlegmasia dolens.

It usually happens, as I have observed already, that apoplexy or convulsion occurs in the parturient state, from the conjoined operation of

several of these causes. And it is only by an attentive consideration of all of these sources of danger, that the attack is to be prevented in the first place, and its recurrence in the second.

It is important also, with the view of prevention, to consider the probable condition of the encephalon itself immediately leading to an attack of convulsion or apoplexy. It is doubtless one either of irritation, or of fulness. Every cause of these morbid states of the brain, must, therefore, be carefully removed and avoided, whilst their effects are combated by the most vigorous remedial measures.

This is the more important, because each recurrence of convulsion is not only attended by immediate danger, but aggravates the morbid condition of the brain, and augments the tendency to the repetition of the paroxysms of convulsion. The same observation may be made of each contractile effort of the uterus and abdominal muscles, during parturition, which, like the fits of hooping-cough in other circumstances, has in some instances led to convulsion.

The state of the system which obtains im-

mediately after delivery, is, in many important circumstances, different from that which exists during pregnancy and in the act of parturition.

The emptied state of the uterus and abdomen, constitutes in itself a source of inanition ; and there is usually more or less of loss of blood, and sometimes even an extreme degree of hæmorrhagy, so that the system in general must be considered to be in a state of exhaustion.

There can be no doubt, that this very exhaustion alone has, in some instances, induced convulsion. But it is probable that, in many, some of the causes of this terrible affection which have been mentioned, and especially a state of uterine, stomachal, or intestinal irritation, have concurred to produce this effect.

The more usual immediate consequences of delivery, and of uterine hæmorrhagy, is a state of syncope ; this is more or less severe and alarming, according to the degree of loss of blood, and of the susceptibility to its effects, and varies from the slightest degree of faintishness to such a state of syncope as may endanger life.

Similar effects are sometimes to be attributed to the protracted sufferings of a lingering labour,

in other cases, to the violence of pain, and in others, to alarm and dreary apprehensions and anticipations on the part of the patient.

These circumstances sometimes lead to sudden death, an event which may occur immediately upon delivery. In such cases, cordials given during the last stage of labour, the recumbent position guardedly preserved, and the immediate and careful application of the abdominal bandage, may save the patient.

Perhaps the condition of the system, under the influence of some of the circumstances of parturition, cannot be better expressed than by the term 'shock'; and it may be aptly compared to a similar state under very different circumstances, and especially those of a painful operation. This state of shock seems to consist in a partially suspended power and action in the system. It may be suddenly fatal; or it may yield to re-action, which may or may not pass the boundary of health; or, lastly, after some feeble efforts, it may lead to a gradual but irretrievable sinking of the vital powers. This subject has not been sufficiently noticed in

medical writings, especially in connection with the parturient state.

One of the influences of shock still requires to be mentioned. Many causes of disorder may long remain dormant, or may be affecting the system in the most gradual manner only, until they are called into a more active operation by some kind of shock. This is particularly true in regard to intestinal irritation. This cause of disorder may long subsist in an inactive state, until, by the occurrence of some shock to the system, it is brought into but too effective operation. It is for this reason that the effects of intestinal irritation are so frequently observed in the puerperal state, and after various accidents, without which this cause of constitutional derangement might have long remained inoperative, or at least insufficient for the production of acute disease.

In the treatment of apoplexy or convulsions before delivery, and even after delivery, except in cases of profuse uterine hæmorrhagy, the principal remedy is blood-letting; the second object is the removal of all those exciting causes of the

disease, which have been mentioned ; and the third is cupping of the occiput and neck.

In the case of hæmorrhagy, the remedies are still the removal of the exciting causes, and cupping.

It is not my intention, in the present work, to pursue the subject of the treatment of these affections, because it is my wish rather to confine myself to the description of some other forms of puerperal disease which have, in my opinion, been greatly overlooked. But I cannot refrain, even in this place, from pressing several points upon the attention of practitioners.

Of the absolute necessity for full blood-letting, I need not speak. But I would particularly observe, that a state of exhaustion from loss of blood generally from the system, does not protect the brain from a state of vascular fulness. This I consider to be abundantly proved in the excellent paper of Dr. Kellie, in the Medico-Chirurgical Transactions of Edinburgh, and by the fact of the occurrence of convulsions, and even of apoplexy, in this state of exhaustion. It is in this very case that cupping of the occiput is so strongly to be recommended. The brain, in

some cases of exhaustion, is relieved by the topical abstraction of a very small quantity of blood; and this relief is not only obtained by a less expenditure of blood, but is more permanent than similar relief effected by general blood-letting.

The next point upon which I would insist, is the careful removal, not of one or two, but of all sources of irritation, — of all the possible exciting causes.

A point not less important than the treatment of these affections, is their prevention. I believe no means would conduce so much to this purpose, as the invariable administration of copious warm water injections at some period before or during labour. The large intestines would thus be relieved of their load, and a great and fertile source of future disease would be removed. And this remark applies not to affections of the head only, but to many other puerperal diseases, as will be noticed in a subsequent chapter.

CHAPTER III.

OF THE MORBID AFFECTIONS WHICH OCCUR IN THE
PUERPERAL STATE.

THE morbid affections which occur in the puerperal, as distinguished from the parturient state, usually commence at such a period after delivery, as may have given space for re-action to take place, from the state of inanition and exhaustion which usually obtains immediately upon parturition.

It should be observed, however, that there is scarcely a disease of the puerperal state which does not occasionally show itself before delivery. In these cases, the disease usually remains stationary, or nearly so, until parturition has taken place, and then assumes its exasperated form.

In some instances, and those of the most serious kind, puerperal disease supervenes insidiously, and makes a slow, and probably an unheeded, and fatal progress.

Even of those puerperal diseases which commence by marked symptoms, the more serious are not always the most unequivocal in their mode of attack. Pure inflammation is, for example, less marked by rigor, heat, and other obvious symptoms, than the effects of intestinal irritation. This is a point which requires to be enforced upon the attention of practitioners; for, in inflammation especially, it is of the utmost importance to detect the disease in its very origin.

I have already observed that it is not my intention, in this work, to treat of the whole of those diseases which occur in the puerperal state, but to lay before my readers some observations which I have made in practice, in regard to some of them. This I shall do, by first treating of abdominal inflammation, and its varieties; secondly, of intestinal irritation in its various forms; thirdly, of the effects of loss of blood; and fourthly, of mixed cases which combine two or more of these morbid states. I shall then resume the diagnosis, and the comparative treatment of these diseases, in a separate chapter.

Subsequent experience has only confirmed the opinion which I expressed seven years ago, that the effects of intestinal irritation, and of loss of blood, constitute a great part of puerperal diseases, and a great proportion of the fatal cases; and that of those fatal cases, many are rendered so by a mistaken use of the lancet.

The effects of intestinal irritation, and of loss of blood, are, indeed, as I shall proceed to show, apt to produce symptoms of increased action resembling those of inflammatory disease, and prompting the use of evacuant remedies. This proceeding is attended by two sources of error: in the first place, the symptoms are frequently relieved in the first instance, — a state of faintishness taking place of that of re-action, — and the physician is apt to judge that the remedy had relieved, but was used in too mild a degree to subdue the disease, and is thence led to a repetition of the measure; in the second place, after the first and second moderate use of the lancet, for instance, the re-action returns in a still more violent degree than before; and it is then imagined, that the disease, though relieved, was not only not subdued, but had been suffered to

make a fearful progress ; the lancet is, therefore, again used, until it may be that the powers of the system yield, and sinking takes place of re-action ; or, if the last blood-letting be considerable, the scene may be closed by a sudden and unexpected dissolution. I published several sad instances of this kind in my former little work upon this subject, to which, to prevent repetition, I would refer my readers.*

I have already observed, that the effects of inflammatory action, of intestinal irritation, and of loss of blood, are alike apt to prevail in the puerperal state. It is only necessary to add, that they variously resemble each other, in different instances, so as to require the utmost attention for their diagnosis, and yet require totally different remedies for their safe treatment and cure, to give the subject all the interest of which it is susceptible.

* Cases of a Serious Morbid Affection, &c. p. 49. *et seq.*

CHAPTER IV.

OF PUERPERAL INFLAMMATION WITHIN THE ABDOMEN.

INFLAMMATION within the abdomen, as it occurs in the puerperal state, may be divided into three kinds: that which chiefly affects the uterus and its appendages; that which appears to be general over the peritonæum; and that which is confined to a portion of this membrane.

A distinction of still greater practical importance, is that between the acute and the insidious forms of puerperal inflammation of the abdomen. Sometimes the attack is distinctly characterized from the beginning; at others it is of the most insidious character, perhaps to be referred back to a date anterior to parturition, or even apparently issuing out of mere labour-pain. These are points which require to be deeply impressed upon the mind of the young physician, in order that they may induce

in him that degree of watchfulness, in regard to these diseases, which they so imperatively demand.

Inflammation within the abdomen, of whatever kind it may be, is only to be ascertained by the presence of pain, induced or aggravated upon pressure. This is the pathognomonic symptom of the disease. All the other symptoms are only accessory; and they are all, without exception, inconstant. In some insidious cases of abdominal inflammation, the tenderness even, is only discovered by a careful examination. And there is sometimes pain under pressure, when there is no inflammation. These remarks, will, I trust, lead to the most careful examination of the abdomen, and of the symptoms in general, in every case of puerperal disease.

The acute attack of puerperal inflammation within the abdomen, is frequently marked by rigor. This is frequently, in the worst cases, only slight. I cannot sufficiently enforce this fact upon the attention of my readers. Some have imagined that there could be no puerperal inflammation of the abdomen without severe rigor; and they have generally supposed, that

severe rigor necessarily supposes an attack of inflammation, I can most unequivocally attest, that both these opinions are erroneous, and contradicted by facts.

I would make precisely the same observations in regard to great heat of surface, or fever. I have known many instances of acute puerperal inflammation within the abdomen, unattended by heat of skin, and many cases resembling inflammation, but not in reality inflammatory, in which the heat of surface was extreme.

Frequency of the pulse is not a less uncertain indication of inflammation. I am enabled to say, from careful observation, that the pulse is but little accelerated in many cases of puerperal inflammation within the abdomen, whilst it is excessively and even alarmingly frequent in some cases in which inflammation does not exist.

In regard to pain and affection of the head, they are by no means essential attendants upon puerperal inflammation of the abdomen, in its first stages; but, on the contrary, appear to me to denote another and different kind of morbid affection, to be described hereafter, which may

exist alone, or as a complication of inflammation.

Pure puerperal inflammation of the peritonæum is to be ascertained by an attentive examination of the abdomen. There is either pain increased upon pressure, or tenderness discovered upon pressure; and this is either general over the abdomen, or confined to the hypogastric region, or, lastly, in cases of partial peritonitis, to some other part of the abdomen. With the pain or tenderness there is frequently either general tumidity of the abdomen, or a local hardness; in the latter case it is frequently such as to denote an enlarged and inflamed condition of the uterus, but it occasionally arises from an affection of the ovary, or from partial inflammation and suppuration of the peritonæum.

There are sometimes, and only sometimes, sickness and vomiting; there are also, in some instances, a suppression of the lochial discharge, and a flaccid state of the mammæ. But I do not think the precise cases, in which these effects do or do not occur, have been distinctly ascertained by the observation of a sufficient number of facts.

In pure puerperal inflammation of the abdomen, there is not necessarily much rigor, heat of skin, load of the tongue, affection of the head, or great frequency of the pulse ; there is, on the contrary, in many instances, only a slight degree, or even an entire absence of rigor, little or no heat of surface, or whiteness of the tongue, little frequency of the pulse, and no affection of the head. But the countenance, manner, and respiration, usually become highly characteristic.

I long ago* observed, that inflammation within the abdomen was attended and denoted by a *peculiar* expression of the countenance. And I find the remark confirmed and stated in still more emphatic language by the celebrated and lamented M. Laënnec.† Puerperal inflammation within the abdomen is marked by an expression of extreme pain and anxiety in the countenance ; the brow is contracted, and the upper lip is drawn upwards in a peculiar and characteristic

* See the Treatise on Diagnosis, *passim*.

† *Traité de l'Auscultation Médiate*, (Ed. 2de.) t. x. p. 615.
Journal de Médecine, t. iv. p. 50.

manner, and bound round the teeth or rather gums. These appearances are increased on pressing upon the abdomen, or they are observed at that moment, if they had not been manifest before. The countenance is generally pale, and rather sunk, but with partial heats.

The manner of the patient is much changed, and has become expressive of suffering and anxiety. The movements of the body are attended by pain, and are, therefore, suppressed ; or if performed at all, it is with an expression of suffering in the countenance and of caution in the manner ; and there is an appearance as if the body had become heavy and helpless.

The respiration becomes rather hurried and anxious, and it is performed principally by movements of the thorax, those of the diaphragm and abdomen being more or less, sometimes completely, suppressed ;—a circumstance which gives great peculiarity to the appearance of the breathing. Sometimes there is considerable heaving of the chest, with some hurry, some noise from the ingress and egress of the air, and sometimes with a sort of blowing ; this state of the respiration is attended by the utmost danger,

being frequently one of the first symptoms of the sinking state, of which I shall have to speak immediately, and to which I wish earnestly to call the attention of my readers.

The general surface is generally a little increased in its temperature, and there is frequently perspiration.

The pulse is at first only moderately frequent, but gradually becomes more so, and it is often small and apparently feeble.

I have already alluded to the occasional occurrence of sickness and vomiting. The abdomen is frequently tense and tumid, as well as tender under pressure; this is an affection to be anxiously watched; it sometimes increases to a state of complete tympanites. The state of the bowels is very various; there is by no means always constipation; sometimes there is diarrhoea, with or without the discharge of mucous stools.

Instead of general tumidity of the abdomen, there is frequently a distinct tumor with tenderness in the region of the uterus, in the iliac region, or in some other region of the abdomen, leading to the suspicion of an especial affection

of the uterus or ovary, or of a partial inflammation and suppuration of the peritonæum.

I propose to ascertain, hereafter, the state of the lochia, and of the mammæ, in cases of pure and unequivocal inflammation in the abdomen in the puerperal state. I do not think these points have been determined in an explicit manner, because I believe that several other affections, of a different nature, have been confounded with inflammation, and that the symptoms and effects of these different diseases have been blended and confounded together, both in practice, and in medical writings upon this subject.

I have thus described the most usual form of puerperal inflammation of the abdomen in its commencement. I do not think it either possible or profitable to divide the disease into distinct stages. But it is quite incumbent upon the practitioner to trace the usual changes which are observed in this disease: these are, first, a gradual amendment, — secondly, a gradual exasperation of the disease, — and thirdly, the supervention of the state of 'sinking'.

Little can or need be said upon the two first of these changes. Every appearance of a return

to a healthy state of the functions and general appearances of the patient, will raise our hopes ; but there are no points of so much importance to be watched, as the expression and condition of the countenance, the manner, and the state of the abdomen. No apparent amendment is to be at all depended upon, unless it has continued and been progressive for four and twenty hours ; this is a caution of great importance to the young physician, in guiding him in his expressions in regard to the prognosis. And even in the most favourable cases, the further progress towards recovery is to be watched with the utmost care and precaution.

In the less favourable cases, the countenance becomes more and more altered, the pulse more and more frequent, the abdomen more tender and tumid ; the manner and muscular powers of the patient appear overwhelmed ; the respiration becomes more heaving, and, as I have usually termed it, “blowing,” being somewhat audible, a condition of the breathing always attended by the utmost danger. At this period, too, there is often some degree of delirium, alternating perhaps with slight dosing, and there are, generally,

restlessness and jactitation, and the patient cannot bear the arms to be covered.

At this period, too, the tongue is frequently loaded and more foul, and sometimes dry; the bowels are variable, frequently flatulent and loose. The mammæ are flaccid, the lochia suppressed; the skin is clammy and wet, if not cold, the hands and wrists are often livid, and the feet cold.

This description of symptoms applies to the case of general inflammation of the peritonæum. The more partial cases of peritonitis continue longer, and affect the constitution less, and less rapidly. In some instances the integuments over the seat of inflammation have become tumid, and inflamed, and an issue has at length been effected for the subjacent pus, the abscess has afterwards collapsed and healed, and the patient has slowly but finally recovered. This opening frequently takes place about half way between the umbilicus and spinous process of the ilium. In other instances, the matter has been evacuated by the rectum, and in some rare examples, by the bladder. In other cases the abscess has not been evacuated during life; but the pa-

tient has gradually emaciated, and the health and strength have failed ; there have been great frequency of the pulse and hectic, and the disease has at length, though perhaps very slowly, proved fatal. It has, however, occasionally happened that the effused fluid has been re-absorbed and the fatal event averted.

But the acute form of puerperal peritonitis sometimes issues in a state of sudden sinking of the vital powers. The change and symptoms are such as have frequently led to the suspicion of gangrene having taken place. But no such appearance is observed on examination after death.

This state of sinking is usually rather abrupt in its manifestation. The patient may be left, not without hope, the preceding night, but on being visited on the ensuing morning is found to have passed into a state of hopeless sinking. The pain has ceased, but the tumidity of the abdomen is augmented ; the brain is in a state of low stupor, the breathing is attended by heaving and blowing, the skin of the arms and hands is cold, clammy, and livid—the livid colour only partially disappearing on pressure ; the pulse

is thready and excessively frequent, the countenance is altered and sunk, the patient may be roused, but is then, perhaps, unconscious of pain, and expresses herself as being relieved; the hands are kept out of bed; sometimes there is cough, and the feet are livid and cold.

The morbid appearances usually induced in cases of inflammation of the uterus and of the peritonæum are well known.

In inflammation of the uterus, there are, in different instances, exudations of serum, of coagulable lymph, and of pus from its surface; its substance is sometimes enlarged, softened, infiltrated with pus, or the seat of distinct abscesses; and its internal surface is frequently morbidly red, and the source of various discharges. The appendages of the uterus are frequently the seat of similar morbid appearances.

The peritonæum, when inflamed, pours out serum, coagulable lymph, or pus; and its different surfaces are apt to be variously glued together. Frequently the intestinal canal is found distended to the utmost, as before death, by fœtid gases.

In some instances pus is effused and deposited in various parts of the peritonæum, being confined by the adhesion of contiguous portions of this membrane.

There is no part of the peritonæum, and no viscus in the abdomen, which may not become the seat of puerperal inflammation, and of the consequent changes of structure. The parts most frequently affected by puerperal inflammation, however, are the organs contained within the pelvis, — the uterus, its appendages, the rectum, the bladder, and the peritoneal lining of the pelvis ; and then the peritonæum in general. In an interesting case, published by Dr. Ley, the spleen was found to be a principal seat of disease.*

I have been brief in my account of the morbid appearances in puerperal inflammation within the abdomen, because I had nothing novel to offer upon this point. I have long wished and still hope to possess more ample opportunity of comparing the symptoms with the morbid anatomy, in this interesting class of diseases.

* Transactions of the College of Physicians, vol. v.
p. 304.

I now proceed to state the treatment of puerperal inflammation.

And I would observe, in the first place, that nothing can be trusted to, to save the patient, but the most ample blood-letting, and, in the second place, that nothing should preclude the use of this remedy but the actual existence of the state of sinking. In regard to the measure, and the repetition of the blood-letting, many points must be taken into consideration. The earlier, and the more fully, this remedy is employed, the more efficacious and the safer it is, and the safer is its full repetition.

There is one point which I would particularly impress upon my reader. It is, that the blood-letting should, in this disease, ever be performed, the patient being in the erect position; and it may then, in general, be safely carried to deliquium. I do not recommend this mode of proceeding with the view of producing deliquium merely; but also, that this deliquium may serve us as a guide, in judging of the extent to which we may carry the depletion. If the patient be sitting upright, and faint by the loss of blood, we have a security and remedy against any danger

from this event, in laying the patient low. But if deliquium be induced by bleeding the patient in the recumbent position, I cannot say that I think it will always be without danger. I think the plan which I have proposed at once far more safe, as well as far more efficacious in subduing this disease. If it were requisite, the patient's head might be laid even lower than the rest of her body.

The same rule may apply for the repetition of the blood-letting. If the fullest effect is desired which the patient can safely bear, let her be bled to syncope in the erect posture. She will faint from losing a larger, or a smaller, quantity of blood, precisely in the inverse proportion of the previous exhaustion; the state of syncope will not only warn us to desist from drawing more blood, but will arrest the flow of blood itself, just at the point when the patient can bear to lose no more.

This is a most important criterion for the employment of a most powerful remedy. I do not by any means wish it to be understood, that it is always safe to bleed to deliquium in the erect posture; but that, when it is determined to

bleed, it is important to have the boundary, which it would be unsafe to pass, at least clearly defined. Sometimes the patient will faint on being merely placed upright; is it then, ever, and in what particular cases, safe to bleed?

The next question is in regard to topical blood-letting. And I think there is one important rule for the adoption of this remedy. It may, of course, be enjoined to be done immediately after general blood-letting. But it is particularly useful in those cases, in which the system is obviously subdued by the general blood-letting, and yet the inflamed part remains tender under pressure. In such cases, leeches, or still better, cupping, if it be properly and tenderly performed, will prove a most useful remedy.

It is quite unnecessary to state the utility, or rather the necessity, for the administration of purgative medicines in this disease. There is good reason to suppose that some cases have been subdued even by this remedy alone. And the efficacy of purging in conjunction with blood-letting is quite undoubted. A constant catharsis should be kept up, indeed, until the disease is completely subdued.

In cases in which there is great tympanitic distension of the abdomen, an injection of warm water sometimes succeeds in inducing evacuations of flatus, which greatly relieve. I have sometimes thought, that still more effectual relief, of the same kind, might be obtained, by the introduction of a flexible tube, properly pierced, high into the large intestine.

Much and important relief may also be afforded in some cases, in which suppuration has taken place, by giving exit to the pus, when it plainly fluctuates and approaches the surface.

Blisters also are of great service in those cases of this disease, which are not attended by much heat or irritability. But in other cases they have appeared to me to add to the patient's sufferings, to prevent sleep, and to do harm by leading to a state of exhaustion.

There are still three other powerful remedies, of which I wish to make a cursory mention in this place.

The first is the plan of emetics, which is well known to have been so successful in the hands of M. Doulcet of Paris.

The second is the *spiritus terebinthinæ*, recommended by Dr. Brenan, of Dublin.

And the third is the attempt to induce a state of ptyalism, by mercurial medicines and inunctions.

Of emetics, but especially of the *spiritus terebinthinæ*, I would observe that, like purgative medicines, they have doubtless been used successfully in many cases ; but I much suspect that many of these cases were not inflammation, but intestinal irritation.

As it is not my object, in this work, to give a systematic account of what has been written by others, but only the result of my own observations, I beg to refer the reader to the different publications upon puerperal diseases, in regard to the two first of these subjects. Of ptyalism, I would merely observe, that it deserves a trial ; it is one of those measures which are most powerful, and yet, generally, unattended with risk, and it would by no means preclude the adoption of every other more prompt and efficient mode of treatment. If adopted early, it might prevent some of those protracted states

of the disease, which occasionally occur and wear out the patient.

I need scarcely observe, that during the existence of inflammation, the patient should be allowed absolutely nothing but tea or gruel in the smallest quantities.

In some cases in which the pain is not severe, but the tension of the abdomen great, continued but extremely light frictions of the abdomen have done great good. They may be followed by the application of a cold lotion, and by fomentation of the feet.

In cases of pure inflammation, I do not think the use of opium desirable. The pain must be subdued by blood-letting; and every thing that, by masking the pain, can divert our minds from the use of this remedy, involves danger to the patient. And there are seldom those symptoms of constitutional irritation which require the use of opium, until the inflammation has subsided. In mixed cases, I think the use of opium, especially after blood-letting, may be both necessary to subdue constitutional irritation, and beneficial in the cure of the disease.

CHAPTER V.

OF THE EFFECTS OF STOMACHAL AND INTESTINAL
IRRITATION.

I HAVE already called the attention of the profession to the influence of stomachal and intestinal irritation, in inducing, under certain circumstances, a peculiar morbid affection, and especially a peculiar puerperal disease.* It is my intention, in the present chapter, to embody my former observations, with my subsequent experience, upon this important subject, in its relation to the puerperal state.

Some of the effects of intestinal irritation may be observed before parturition. But it is far more usual to find them developed afterwards. They generally take place rather suddenly, about forty or fifty hours after delivery; but the puerperal state appears so to dispose to this affection, that the presence of any cause, of stomachal or intestinal irritation, cannot always

* See Cases of a Serious Morbid Affection, &c.

be borne with impunity for many days even, after delivery.

This affection may, for the facility of description, be divided into the acute and the insidious: each of these forms manifests itself with general symptoms only, or with some predominant local affection.

The acute form of intestinal irritation is generally ushered in by a violent rigor. This is an important fact; for rigor has been considered as denoting puerperal inflammation, and essential to the latter disease. Neither of these suppositions is true: for puerperal fever may occur, in a severe and fatal form, without rigor; and the severest rigor may only portend an attack of the effects of intestinal irritation; and in general, the latter disease is attended even with a severer rigor than the former.

In the attack of intestinal irritation, there is usually, after the rigor, great heat of the surface. I have already observed, that this is by no means an essential part of puerperal inflammation; indeed, I do not think that it properly belongs to the latter disease, but that, when it does occur with inflammation, it denotes a

mixed case, and the co-existence of intestinal irritation.

In the attack of the effects of intestinal irritation, there is usually earlier and even greater frequency of the pulse, than in cases of puerperal inflammation ; the pulse is also usually fuller than in the latter disease.

Intestinal irritation induces symptoms which are similar to those of the most acute phrenitis, or to those of the most acute peritonitis. This is a remark of the utmost practical importance ; for the remedies in these different cases are totally different ; and I should say, that in the former, the freest blood-letting must be aided by purgative medicines, whilst, in the latter, the freest and fullest evacuation of the intestines must be aided by blood-letting. A mistake, in either case, would, in my opinion, endanger the life of the patient ; and it is a foolish and idle remark to say, that it is better to mistake irritation for inflammation, than inflammation for irritation. It is of the utmost importance to attend to the distinctions which I have made between inflammation and intestinal irritation, in regard to the treatment ;

for, although both blood-letting and purging are to be used in every case, yet the former is *the* remedy in inflammation, and the latter in intestinal irritation. If the cure of inflammation be trusted, even chiefly, to purgative medicines, I think it will frequently proceed to the destruction of the patient; and if blood-letting should be chiefly employed, in like manner, in intestinal irritation, I believe it would leave the disease unsubdued, and eventually plunge the patient into a state of irremediable exhaustion.

The affection of the head and of the abdomen frequently co-exist, or alternate, in the same case; but sometimes one of them exists to the exclusion of the other, or supervenes upon the cessation of the other; and in the latter case the affection of the head usually succeeds that of the abdomen. The diagnosis is much confirmed by this conjunction of the two affections.

In the affection of the head from intestinal irritation, there is frequently the severest pain, and the utmost intolerance of noise, light, and disturbance of every kind. It is in these cases, principally, that the pavement is covered with straw, the knocker tied, the patient's room kept

dark and still, so that these very external circumstances speak a significant language to the physician.* To the symptoms which have been enumerated, are frequently added wakefulness and even delirium.

When the abdomen is affected from intestinal irritation, there is general pain, tenderness upon pressure, and frequently tumidity, combined with the general symptoms which I have already enumerated.

Much is effected and learnt in this case by the exhibition of large injections of warm water, and of active purgative medicines, a careful examination of the evacuations, and a studious observation of the effects produced upon the disease. The fæces will be found to be scybalous, or, at least, offensive and dark-coloured, and in large quantity. And the relief obtained, or the return of pain, will be found to depend upon the evacuated, or neglected, state of the bowels.

Another point of great importance is an attentive inquiry into the diet of the patient; this

* The other cases in which these things are also observed, are phrenitis, the effects of loss of blood, and disease of the heart.

inquiry frequently reveals the mystery of an attack, and, of course, immediately leads to the adoption of an important remedy.

In regard to the course of cases of intestinal irritation, I imagine that, under judicious treatment, this would always be one of progressive recovery. When a contrary event occurs, I think it is to be attributed to the misuse of remedies, — and especially of blood-letting. In this manner some of the symptoms which are detailed in the succeeding chapter are superinduced, — and sometimes a sudden dissolution has overwhelmed the practitioner with consternation.

I have already noticed that one of the characteristics of intestinal irritation, is the susceptibility to syncope upon blood-letting. This is of course much more remarkable upon a second or third blood-letting, than upon a first use of the lancet. I have now to add, that no dependence can be placed upon the appearance of the blood drawn. This may be much buffed and cupped, in the puerperal state, without the existence of inflammation, and in cases of the most decided in-

flammation, these appearances of the blood may be but little observed.

I have scarcely had an opportunity of examining the state of the internal organs after death; for in general the patients affected by intestinal irritation have recovered. But I have no doubt that such an examination would illustrate the following important remark of the late Dr. Denman; — “We have been told, that in the dissection of some who are said to have died of puerperal fever, no appearances of inflammation have been discovered; but I should suspect that, in such cases, some important appearances had been overlooked, or that errors had been committed as to the nature of the disease, and probably in its treatment.”

A due consideration of the effects of intestinal irritation will also serve to elucidate other cases of morbid affection, in which the appearances of inflammation were looked for on dissection, but were not found. This observation applies particularly to affections of the head, heart, and abdomen.

In several cases of this morbid affection, which I had the opportunity of examining many years

ago, no morbid appearances were found on the most careful inspection.

I have already sufficiently alluded to the causes of this affection. They are, for the most part, obvious sources of gastric or of intestinal irritation ; the former chiefly affecting the head, the latter, both the head and the abdomen, either together or separately. This subject, as well as the symptoms and character of this morbid affection, will be aptly exemplified by the following cases.

Mrs. ——, aged 35, continued well for several days after delivery, until she partook of some ham ; she soon began to complain of pain of the head, and vertigo ; on going to bed the pain and vertigo increased, and she became affected with rambling and starting, with great intolerance of light, so that she complained bitterly on a candle being brought into the room, and with equal intolerance of noise and disturbance. The pain of the head occupied the occiput principally ; there was also pain in the region of the stomach, and general soreness over the abdomen.

The intelligent surgeon who attended this patient prescribed a purgative enema, followed by

a pill consisting of five grains of calomel and one of opium, and an active purgative mixture,—and directed the feet to be fomented. The following morning every symptom had disappeared. The patient reported that the action of the purgative and the fomentation had promptly relieved her. She added an expression of surprise at having obtained such immediate relief, having on a former occasion experienced a similar attack and been bled to no purpose, as she had continued to suffer for many days.

The following case, which I extract from the interesting paper of Dr. John Clarke *, to which I have already referred, p. 163., is still more extraordinary.

“ Mrs. T. came to London expressly for the purpose of lying-in. She was a healthy woman, the mother of several children, and had always passed through the period of her confinement without any unfavourable complaints.

“ For the purpose of her confinement, she resided in a furnished house, where two streets crossed each other, and there was a mews at the

* Transactions of the College of Physicians, vol. v. pp. 125, 126.

back of the house. Here she lived for three weeks before her labour. She had a very natural delivery, and slept well afterwards. By the end of 10 or 12 days, she was well, and free from any disorder.

“ In the course of one night she was seized with a severe pain in her head, attended with considerable impatience of light. These symptoms became more violent towards the morning, so as to excite great alarm in her husband, who immediately came to the writer. On learning that she had been perfectly well on the preceding day, he asked if she could attribute the pain to any cause. She replied that she knew of none, unless that, from the situation of the house, she heard every carriage which passed the streets, and every carriage which entered or left the mews. But as she had been in the house five weeks without having found any inconvenience from it before, this did not appear a probable way of accounting for it. *

“ Every inquiry respecting her diet was made,

* It is plain that this circumstance was the effect, and not a cause, of the disease, and consisted in intolerance of sound so common in these cases. M. H.

and it appeared that she had eaten nothing but the most simple food. The writer, upon receiving this information, observed, that he was glad that she had eaten no oysters. To this observation she replied, that she had, two days preceding the attack, eaten oyster-sauce to some boiled chicken, but that she could not comprehend how that should produce such a violent pain in the head; and she appeared anxious to know, whence the satisfactory conclusion was drawn from her having before said, that she had eaten nothing but simple food, having forgotten the oysters, of which she had swallowed about a dozen. An answer to her inquiry on this head was avoided."

I would earnestly recommend the whole of this essay to the reader's attentive perusal. It is quite obvious that the symptoms which are detailed in it, as resulting from partaking of oysters in the puerperal state, may originate from any other equivalent source of irritation of the stomach.

The following cases appear to have arisen out of the state of the lower portion of the alimentary canal.

Mrs. —, a healthy young person, was confined on January the 20th, 1820. On the preceding day she had experienced inefficient wearying pain. On the morning of her confinement the pains were strong, but the os uteri was found to be rigid; she was therefore bled to eighteen ounces, and her labour was soon afterwards completed.

Mrs. — continued well until the succeeding morning, when she was affected with severe shivering, which was repeated three times, occupying about the space of three hours. The rigors were succeeded by great heat of the skin, and by great sickness, retching, and vomiting. An enema and purgative medicine were administered; much hardened foeces were expelled, together with a fluid having the appearance of yolk of egg; and much relief was experienced. In the evening, and during the night, however, there was great heat of surface; there were much restlessness and constant changes of posture, and throwing the arms about and out of bed; the sleep was disturbed by startings and slight delirium; there were head-ach, confused vision, and much humming noise; and there was

great faintishness on any attempt to assume the erect posture. She was directed to take the effervescing mixture.

On the morning of the 22d the sickness returned; the purgative medicine had acted; there was considerable uterine discharge. A draught was given with thirty-five drops of the *tinctura opii*.

I saw the patient about one o'clock: the pulse was then 144; there were head-ach, intolerance of light, dimness and imperfection of the vision, and great humming noise in the ears; there was some beating of the carotids visible externally; there were restlessness, changes of posture, throwing of the arms out of bed, faintishness if raised to the erect position, a feeling of want of air, and relief on smelling vinegar. A draught with thirty-five drops of the *tinctura opii* and a dram of the *spiritus ammoniæ aromaticus*, was ordered to be taken immediately, and to be repeated in three hours; a lotion, consisting of a dram of sulphur *zinci* and a pint of water, was directed to be applied to the pubes, and within the vagina. An aperient draught was prescribed, but not given.

In the evening the pulse was 130; there had been comfortable, refreshing, and undisturbed sleep; all the symptoms were abated; the bowels had been purged; the uterine discharge was diminished. A draught with ten drops of the *tinctura opii* and half a dram of the *spiritus ammoniæ aromaticus*, was prescribed to be taken every five hours; the effervescing medicine was continued; the face and hands are directed to be washed with a lotion when hotter than natural.

Early on the morning of the 23d, there was an attack of troublesome coughing. At ten o'clock the symptoms were nearly as on the preceding evening; at night they were still further mitigated,—the pulse being 120, the bowels open, the uterine discharge more scanty.

On the succeeding day, Mrs. —— complained most of general stiffness and aching of the limbs, and the pulse was 125. The opening medicine was given, the opiate draughts were again prescribed, and the lotion was omitted. In the evening Mrs. —— was relieved, and the pulse was 120.

On the next day there was little complaint;

the pulse was 108, the bowels open, and the lacteal discharge natural. All these symptoms at length subsided ; but soon after this time, the vein which had been pierced in the arm began to inflame, and this new but terrible disease, proceeded, in spite of every remedy, and destroyed the patient.

In Mrs. —, aged 34, labour began on the 20th of November, but proceeded so slowly, that the os uteri was not fully dilated until the morning of the 24th, at which time it was thought proper, from the inefficiency of the pain, and the exhausted state of the patient, to deliver by means of the forceps.

There had been, from the obstinacy of the patient in regard to the treatment, no alvine evacuation during the long period of the labour ; on the morning of the 25th there was a costive motion. In the evening a dose of calomel was administered, and an aperient draught was prescribed.

On the morning of the 27th Mrs. — was extremely ill. The aperient draught had been neglected. The patient complained of headache and of want of sleep ; there were a vacant

stare, quickness in the speech, an appearance of hurry and alarm in the countenance, and tremor of the muscles of the face ; there were much heat of surface, and profuse perspiration ; the pulse was 120, and tolerably strong ; she begged that the windows might be opened, complaining of want of air ; there was much pain in the iliac region, with some tenderness under pressure ; and she complained of pain of the loins. She had taken tea principally.

Under these circumstances, thirty drops of the tinctura opii were administered, and followed by four grains of calomel, and a purgative mixture.

In the evening Mrs. —— expressed herself as feeling better ; but the purgative had not operated. An enema was ordered to be administered immediately.

On the morning of the 28th, the enema was found to have induced most copious offensive evacuations, and Mrs. —— was relieved in every respect.

On the succeeding day, Mrs. —— complained of want of sleep, and there was an appearance

of restlessness. An opiate and a repetition of the purgative were ordered.

From this period the recovery was progressive and unvaried.

Some years after the occurrence of this attack, Mrs. —— was taken with somewhat similar symptoms, after a confinement; the abdomen was much tumid and swollen; and there was the utmost anxiety of the countenance and in the mind. She was bled fully; and in the later period of the disease, the spiritus terebinthinæ was fully tried. But the patient sank in spite of every effort to save her. The abdomen was examined, but there were none of the morbid appearances consequent upon inflammation.

In such cases I am persuaded that blood-letting must not be lavishly repeated. But the bowels should be promptly and fully evacuated, and the patient soothed, and her strength supported by the mildest measures, not neglecting one full blood-letting, if necessary, or at the most two.

Mrs. ——, aged 36, was visited on January the 13th, two days after her delivery of her

third child. On inquiry, it was found that she had suffered from severe attacks of pain with diarrhoea, during the last five weeks of her pregnancy. Her labour had been natural, but followed by severe after-pain. She was now affected with excruciating pain, great tenderness, and general tumidity of the abdomen ; the pulse was 150 and small ; there were great general irritation and exhaustion. An enema was directed to be given, containing two drams of the *tinctura opii*, and a liniment to be rubbed over the abdomen, and the patient was visited again in three hours. The pain was relieved and the pulse was somewhat less frequent. Four grains of calomel, and one of *extractum opii*, a purgative mixture, and a large domestic enema, were now directed to be administered without delay.

By these remedies copious evacuations of hardened fæces were produced. The patient remained nearly as on the preceding day. The same remedies were directed to be repeated.

On the morning of the 15th, it was found that more scybalous fæces had been voided ; there were still great pain and tenderness of the

abdomen. During this day an attack of vomiting came on, and left the patient much exhausted, the pulse becoming still more frequent. Half a grain of opium was directed to be given every five hours, and the effervescent mixture in the intervals.

These measures procured the desired relief, and Mrs. —— continued to improve during several days. But on the morning of the 19th she was taken much worse, and on being visited was found in a state of great lowness and restlessness, the pulse not admitting of being counted, the hands and feet being cold, clammy, and livid, and the countenance ghastly. Opiates, gentle stimulants, nourishment, and every means for restoring warmth were recommended.

In the evening, Mrs. —— was somewhat revived. An enema was prescribed. On the morning of the 20th there was more warmth, and the pulse was more perceptible. The enema had brought away more scybalæ. During several days the mouth and throat had become covered with aphthæ. Half a grain of opium was directed to be given occasionally.

The alvine evacuations became natural about the 24th ; on this day there was attack of diarrhoea, with motions of a natural colour ; it was suppressed by opium. A pain in the right iliac region still remained. It was gradually diminished by the use of a liniment, the opiate and aperient remedies being continued. From this period Mrs. —— recovered slowly, but progressively and favourably.

I believe this patient would inevitably have sunk, had the lancet been employed. And it is quite obvious, that such symptoms would not have so yielded, had they arisen from inflammation.

The last case which I shall detail in this place was fatal. The thorax and abdomen were carefully examined, but found free from the morbid appearances left by inflammation.

Mrs. ——, aged 35. For six weeks previously to delivery she had been affected with uterine haemorrhagy varying much in degree. The bowels were in a constipated state. About seven o'clock in the morning of the 16th of September, 1819, she was affected with slight labour pains, and with increased flooding. At ten

o'clock an accoucheur was called to the assistance of the midwife ; the countenance was extremely pale, and the pulse frequent and feeble. Sixty drops of the *tinctura opii* were given in a little port wine, and repeated twice in brandy and water, but they were always rejected by vomiting ; this medicine was at length retained on the stomach on being given in water. When the patient was a little recovered, an examination was made *per vaginam* ; the *os uteri* was somewhat dilated, the *os externum* more rigid than usual in such cases, the vagina plugged with coagulated blood — the flooding having much decreased. The hand was cautiously introduced into the uterus ; the placenta was situated over the *os uteri*, and was separated in about one half of its area ; delivery was effected with less difficulty than was anticipated ; the contractions of the uterus had been and were still inconsiderable. After delivery she expressed herself as feeling comfortable, and better than she could have expected.

The patient continued well until the evening of the succeeding day, the 17th, when she was seized with shivering, which was followed by

great heat of skin, with a very frequent pulse. A purgative of calomel, followed by a draught with rhubarb and sulphat of potassa, was administered.

In the morning of the 18th, Mrs. —— was apparently much relieved. But in the evening an urgent message and call were received. She appeared alarmingly ill, the pulse was 148; there was much violent beating in the head, of the carotids, and of the heart; she required fresh air, and the smelling bottle; and she was much relieved by bathing the temples with vinegar and water; there were general pain of the abdomen, and some tension and flatulency. Six grains of calomel were prescribed, and half an ounce of the oleum terebinthinæ was ordered to be repeated every hour and a half until it should operate.

On the morning of the 19th it was reported that the calomel and one dose of the oleum terebinthinæ had been taken, and had been followed by sleep; the pain and tension of the abdomen were less; the bowels had been moved several times; the pulse was 130. Another dose of the oleum terebinthinæ was directed to be taken.

A few hours afterwards the patient complained of being much exhausted by the purgative operation of the medicine. The effervescing medicine was ordered and appeared to give much relief.

On the 20th the relief still continued. The pulse was about 130; the beating of the carotids less; and the abdomen was free from pain and flatulency.

On the 21st Mrs. —— remained much the same; but the pulse was 140; she had taken light nourishment; there had been six alvine evacuations.

On the 22d the symptoms were aggravated, and Mrs. —— expired in the afternoon.

During the course of this case, there were repeated shiverings, generally after intervals of twelve hours. These were followed by much heat of skin. At different times there was slight delirium, and generally unusual quickness in the manner and in speaking. There was great wakefulness, or if the patient did fall asleep, it was for a moment or two only, and she awoke alarmed and agitated. Besides the symptoms noticed on the evening of the 18th, there was

also a degree of panting and of deep breathing, somewhat resembling that of a person recovering himself after being out of breath.

An examination of the thorax and abdomen was permitted. All the viscera were found in the most healthy state. There was a little serous effusion into the general cavity of the abdomen.

In the treatment of the effects of intestinal irritation, I would by no means exclude the use of the lancet. Blood-letting may be useful in such a case, for the same reason that it is useful in simple fever. But I would repeat, that this remedy is only subsidiary to the full and free evacuation of the bowels, and, if necessary, of the stomach. If it were trusted to alone, or with only a moderate attention to the state of the alimentary canal, or if it were used in the manner which is required to be efficient in puerperal inflammation, I am persuaded that the patient would die of exhaustion, before the symptoms would yield.

The remedies of intestinal irritation and its effects, I would enumerate and arrange in the following order: first, the full evacuation of the

intestinal canal; secondly, blood-letting; thirdly, some kindly anodyne; fourthly, leeches, cupping, a lotion, a liniment, or a blister, according to the circumstances of the case, for the topical affection; fifthly, the mildest, nutritious food; sixthly, the most absolute quiet, and the most perfect security from light, noise, disturbance, and every other source of excitation; seventhly, every soothing plan; eighthly, great coolness, and free ventilation of the sick-room; and, lastly, a constant watching over the patient during sleep, to avoid the injurious effects of turbulent dreams on one hand, and of too long sleep and fasting on the other. Upon each of these points I proceed to make such observations as I have learnt, from practice, to be of importance.

In regard to the state of the alimentary canal, it is quite obvious that an emetic is the proper remedy when the symptoms can be attributed to any indigestible substance taken. And I would recommend this remedy, even although it might appear, from the lapse of time, unlikely that the injurious substance should still remain in the stomach.

When the case originates from intestinal irritation, I would earnestly recommend that the first remedy should be an enema, consisting of three or four pints of warm water, very slowly and gently forced into the bowels. This should be followed by an active purge. And this should, in due time, be followed by a repetition of the injection. I need scarcely observe, that the evacuations should be immediately carefully examined, and the effects upon the symptoms of the disease be watched.

To abate the general heat and excitement of the system, to relieve the head or the abdomen, and to ensure perfect safety, the patient should, in cases in which the strength is not particularly impaired, be raised into the erect posture, and be blooded until faintishness be induced. This effect also should be carefully watched and observed. If it occur from the loss of a small quantity of blood, it confirms the diagnosis; if it do not occur until much blood have flowed, it should suggest the suspicion of more than mere intestinal irritation,—of one of those mixed cases which so frequently occur, and of which I propose to treat in a subsequent chapter.

I do not imagine that this decided use of the lancet can ever be attended with danger, if there have been no previous loss of blood, or other cause of exhaustion. But it could not be repeated with impunity. It would lead to exhaustion with the symptoms of re-action, to the state of sinking, or even to sudden dissolution. And if the case be really one of intestinal irritation, and the other remedies have been duly applied, such repetition of blood-letting will not be required.

It is an observation of great importance, that, in inflammation, repeated blood-letting is required, and is borne with safety; in intestinal irritation, on the contrary, the repetition of blood-letting is neither necessary nor safe.

This free evacuation of the bowels, and detraction of blood, are very apt to be followed by symptoms of hurry and alarm in the system. These effects are frequently prevented by the timely administration of an efficient and kindly anodyne; and I believe no anodyne is possessed of these qualities in a higher degree than the liquor opii sedativus of Battley. Of this excellent

medicine a full dose may be given, and, if necessary, repeated in five or six hours.

If this plan do not perfectly relieve the topical affection, some local remedy must be applied. In cases of cerebral affection, leeches may be applied to the temples, or cupping, or a blister, to the nape of the neck, a cold lotion over the whole head, and fomentation to the feet. Leeches, a fomentation, a liniment, or a blister may be applied, if there be affection of the abdomen.

Before the patient falls asleep, I would recommend some mild food to be taken, as gruel, or panada. This plan prevents exhaustion, and frequently relieves the local symptoms, in securing a more refreshing kind of sleep.

For the same reason the utmost quiet must be preserved in the patient's room. Every species of disturbance greatly agitates the patient, and prevents the good effects of the remedies which have been employed.

I have enumerated, p. 217., some other circumstances which claim our attention in the treatment of this morbid affection; but, in order to prevent repetition, I postpone the remarks which

I have to make upon these points, to the next chapter, — upon the effects of loss of blood ; in which case an attention to them is, if possible, still more necessary than in that under our immediate consideration.

CHAPTER VI.

OF THE EFFECTS OF LOSS OF BLOOD, IN THE PUERPERAL STATE.

THE effects of loss of blood, in the puerperal state, are either immediate or remote. I have already briefly noticed the former at p. 166., but the latter are those which will principally occupy us in the present chapter. In order to avoid repetition, I must beg to refer to an Essay upon the Loss of Blood, published in the Medico-Chirurgical Transactions*, and republished in a little volume intitled, 'Medical Essays.' It is my object, in this place, to confine myself to the statement of the remoter effects of loss of blood, as a puerperal disease.

These effects of loss of blood usually present themselves to our notice in rather an insidious manner; they are not generally introduced by rigor, or heat, or any other acute symptom; though I think there may be exceptions to the

* Vol. xiii. p. 121.

last part of this rule. It is an important remark, that the remoter effects of loss of blood, are frequently developed in cases in which there is also intestinal irritation in a dormant form, but that they very rarely occur in conjunction with inflammation; the effects of loss of blood, when they do occur in cases of inflammation, generally denote that the inflammatory action has been subdued.

I have already observed, that there is rarely either rigor or heat of surface; there may be transient chills and flushes, and slightly augmented temperature; but the countenance, and especially the prolabium, is generally pallid and the skin in a natural state.

The case is usually denoted by a throbbing fulness with moderate frequency of the pulse, throbbing pain of the head, and palpitation of the heart, which is apt to alternate with a state of syncope on slight exertion, or on assuming the erect posture; and there is usually a degree of panting. There is a characteristic susceptibility to fainting, on taking a very small quantity of blood.

I have repeatedly known the effects of loss of

blood to be mistaken for inflammation of the brain, on one hand, and disease of the heart, on the other. I consider this an important remark, as suggesting at once two characteristics of this affection, and the necessary caution in the diagnosis in puerperal diseases.

When the head is affected from loss of blood, there are much beating and throbbing of the temples, pain, a sense of pressure, or vertigo, with rushing or cracking noises.

When the heart is affected, there are great fluttering, beating, or palpitation, starting during sleep, hurry and alarm on awaking, sometimes with faintishness, a feeling of sinking, or of impending dissolution, &c. and with the palpitation, there are frequently beating and throbbing of the carotids, and sometimes of the abdominal aorta, perceptible to the touch, or even to the eye. These affections sometimes recur in the form of attacks, which are attended by much hurry and alarm.

Besides these more marked affections of the head and heart, which render it so necessary to distinguish this affection from inflammation or disease of those organs respectively, there are

many symptoms which occur in a less marked degree or form. There is frequently an inability to bear noise, or disturbance, or even the act of thinking with attention; but there is rarely intolerance of light; the last symptom usually denoting a state of intestinal irritation. There are frequently vertigo, or faintishness, on any exertion, or on assuming the erect posture; and when these two are combined, there has sometimes been a sudden and unexpected fatal termination of the patient's sufferings. In many cases there are great faintishness, and urgent demand for the smelling bottle, for the fan, or the fresh air, and for cold applications to the face or temples, and a sad feeling of impending dissolution. The respiration is affected, in different cases, with panting, hurry, sighing, heaving, blowing, moaning, gasping, catching, &c. There is, in some cases, an irritative cough, in violent fits, or in the form of perpetual hacking, apparently arising from an affection of the larynx or trachea. The stomach is liable to be affected with retching, vomiting, hiccough, and eructation, and the bowels, even in cases in which they were not previously disordered, be-

come variously deranged, with constipation, diarrhoea, and flatulency.

There are frequently, in severe cases, urgent restlessness, and jactitation.

In some cases there are various spasmodic affections. In other instances there are catching pains, which are apt to be mistaken for inflammation.

There are frequent changes, sudden attacks of alarming symptoms, a sense and fear of impending dissolution, urgent messages, &c., which become sad characteristics of this affection.

Another characteristic consists in the faintishness, gasping, or feeling of dissolution, which sometimes follows even a slight blood-letting; an awfully sudden death has immediately ensued, upon a full and mistaken blood-letting at this critical period.

Even the operation of purgative medicine has sometimes induced a degree of faintishness.

Every source of disturbance, of anxiety, or of alarm, and every kind of effort either of mind or body, is apt to be followed by a return or exasperation of the symptoms, and cannot be said to be free from danger.

I have already remarked, that an effort of the muscles, and assumption of the erect posture, have proved suddenly fatal. This sad event occurred to a lady who raised herself in bed, in this exhausted state, to make water; she fell down and expired.

But when the fatal event from loss of blood is not sudden, in this manner, the state of re-action sometimes yields to one of fatal sinking. I have described this state in my 'Medical Essays,' to which I have already had occasion to refer, and from which I extract the following remarks, referring my readers to that little work, for a further detail and exemplification of this condition of the system.

The symptoms of exhaustion with excessive re-action, may gradually subside and leave the patient feeble, but with returning health; or they may yield to the state of sinking. This term is adopted not to express a state of negative weakness merely, which may continue long and issue in eventual recovery; but to denote a state of positive and progressive failure of the vital powers, attended by

its peculiar effects, and by a set of phenomena very different from those of exhaustion with re-action.

If in the latter, the energies of the system were augmented, in the former, the functions of the brain, the lungs, and the heart are singularly impaired. The sensibilities of the brain subside, and the patient is no longer affected by noises as before ; there is, on the contrary, a tendency to dozing, and gradually some of those effects on the muscular system, which denote a diminished sensibility of the brain, supervene, as snoring, stertor, blowing up of the cheeks in breathing, &c. ; instead of the hurry and alarm on awaking, as observed in the case of excessive re-action, the patient in the state of sinking requires a moment to recollect herself and recover her consciousness, is perhaps affected with slight delirium, and is apt to forget the circumstances of her situation, and, inattentive to the objects around her, to fall again into a state of dozing.

Not less remarkable is the effect of the state of exhaustion, with sinking, on the function of the lungs ; indeed, the very first sure indication

of this state is, I believe, to be found in the supervention of a crepitus in the respiration, only to be heard at first on the most attentive listening; this crepitus gradually becomes more audible, and passes into slight rattling, heard in the situation of the bronchia and trachea; there is also a degree of labour or oppression, sighing, hurry, and blowing, in the breathing, inducing acuteness in the nostrils, which are dilated below and drawn in above the lobes, at each inspiration; in some cases there is besides, a peculiar catching, laryngal cough, which is especially apt to come on during sleep, and awakes or imperfectly awakes the patient.

The heart has, at the same time, lost its violent beat and palpitation, and the pulse and arteries their bounding or throbbing.

The stomach and bowels become disordered, flatulent, and tympanitic, and the command over the sphincters is impaired.

The last stage of sinking is denoted by a pale and sunk countenance, inquietude, jactitation, delirium, and coldness of the extremities.

I now proceed to exemplify the effects of loss of blood, by several interesting cases.

Mrs. ——, aged 35, was confined on Friday the 11th of June. For several weeks previously to delivery, she had been subject to pain of the head, and of the left side, which were relieved by an attention to the state of the bowels.

After the expulsion of the placenta, there was considerable haemorrhagy, which induced great exhaustion; two doses of forty drops of *tinctura opii* were given within two hours, with the effect of producing sleep. The flow of milk commenced on the same day, and was very copious.

About three hours after delivery, Mrs. —— was seized with a violent pain of the crown of the head, confined to a space which could be covered by the hand; the pulse was 80 only; there was much thirst; the tongue was little affected; the skin was natural. This pain was relieved by the cold lotion, and opening medicines, and Mrs. —— continued better during ten days.

On the night of Monday, June the 21st, Mrs. —— was taken about 12 o'clock, with severe shivering, which was succeeded by intense heat and dryness of the skin, great pain of the head, and intolerance of light and of noise. At ten

o'clock on the succeeding morning, these symptoms still continued; the pulse was from 120 to 130, and sharp; the pain of the head was throbbing, and the head felt as if bound tight; the tongue was parched. Ten ounces of blood were taken from the arm, which produced temporary faintness, but some relief; the cold lotion was applied to the temples. At seven o'clock in the evening, the pain of the head was as severe as ever, especially if the lotion were not constantly applied; the pulse was 120; the tongue not so dry; the blood already drawn was buffy. Twelve ounces of blood were taken from the arm. This was followed by great faintness, and gasping breathing — to such a degree, indeed, as to lead to the apprehension of dissolution even. On recovery, the pain, and intolerance of light and sound remained as before; the pulse rose to 130. Leeches were applied to the temples and the cold lotion over the head; two grains of calomel were ordered to be taken every two hours; and an opening mixture and an enema were prescribed.

At four o'clock of the morning of Wednesday the 23d, the symptoms continued with little

change; the pulse was 120; there was much gaping. Six leeches were applied to the temples, a blister to the nape of the neck, and the medicines were continued.

On Thursday morning, the 24th, the pulse was 100, and she appeared better, but complained of a degree of beating of the heart. At four in the afternoon the pulse was 120, the breathing was deep, sighing, and rare, and there was a sense of fluttering at the heart, the affection of the head still continuing. Two grains of opium and five of calomel were ordered to be taken immediately.

At two o'clock on Friday morning, Mrs. —— was distressed with a feeling of hurry, of impending dissolution, and of being 'overcome' by sleep; the pulse was 120; and there were sighing and interrupted breathing. At eleven o'clock she was more comfortable, — the pulse was 100; there was less pain of the head, and of intolerance of light and sound, less sighing, and less faintishness; she had been able to sleep for ten or fifteen minutes without feeling overcome; there was some fluttering.

From this day the amendment was progres-

sive, though slow, and on the 29th, the following report was made. There have been some pain of the head, fluttering, faintishness, feeling of dissolution, sighing, breathing, restlessness, &c. at different times, but less than on the 25th ; the skin has been in general hot, but once moist ; the pulse about 100 ; the bowels rather disordered, and the stools dark and offensive.

A similar report was made on July the 3d. It is also stated that the pulse was easily hurried, that there was an evident movement of the abdomen from the action of the aorta ; and that there had been occasionally hurry and alarm during sleep.

On July the 7th, it is reported that Mrs. —— is greatly susceptible of the effects of corporal exertion or mental emotion, which induce hurry, throbbing, palpitation, &c. ; and there are still some throbbing or pulsation observed in the neck and about the heart ; some tendency to sighing breathing, faintishness, &c. ; there is also a return of the pain of the left side experienced during the later period of pregnancy.

On July the 16th there were still throb-

bing and palpitation on any exertion, and hurry on the slightest occasion ; lowness and faintness ; starting and hurry on falling asleep and on awaking ; and a visible pulsation of the abdomen.

From this period, until the 4th of August, Mrs. —— continued to recover in the most favourable manner, when she again experienced a degree of shivering, heat, and pain of the head, and of the side. The medical attendants were called ; the pulse was 104 ; the skin hot ; there were pain of the head ; the feeling of dissolution on falling asleep ; fluttering ; faintishness ; repugnance to food ; severe but ineffectual retching ; the flow of milk lessened ; no vaginal discharge. She could not bear to sit up, the window was wide open, a fan and smelling bottle lay on the bed, and the candle was shaded. The bowels had been moved and some dark and foetid motions passed.

The anorexia had existed for some days, the bowels had been disordered, and Mrs. —— had parted with Mr. ——, who was gone a journey, circumstances which had appeared to conduce to this attack. A brisk purgative was prescribed,

and a draught with *tinctura opii*, *spiritus ammoniæ aromaticus*, and *æther*, was directed to be taken, if the operation of the purge should be too great. In the evening, I found the medicine had induced four or five alvine evacuations, which were free from *fœtor* or even odour. The feeling of faintness continued, and the pulse was extremely uncertain in frequency, varying from 84 to 100 in a minute; there were frequent deep sighs, and almost gasping, with loathing, nausea, and occasionally severe retching. Some beating about the chest, some restlessness, and considerable tremor. She took a little dry toast, a little weak brandy and water, and a little porter, and was ordered half a grain of opium, two grains of *carbonas ammoniæ*, and three of *extractum hyoscyami*, to be taken every three hours. This induced much sleep, the first part of which was attended with the same overwhelming feeling as before, but the latter greatly refreshing, and on the morning of August the 5th, she was better in every respect. In the evening she was still better, but complained of oppression, which was attributed to the extreme

closeness of the evening. There had been one fæculent motion.

On August the 6th, Mrs. —— was very much better. There had been a dark, fœtid, alvine evacuation.

From this time the recovery was progressive, rapid, and permanent, and the patient continues to enjoy a good state of health, with the exception of a disordered state of the digestive organs.

Mrs. ——, aged 44, mother of a large family, became pregnant about the beginning of October, and from that period was subject to sickness and a very irregular state of the bowels, constipation continually alternating with diarrhœa. About the ninth week after conception, there was a flow of fluid by the vagina, which did not coagulate; this flow continued a week, then ceased, but afterwards returned and continued, with the exception of two or three days, until at length the discharge formed into coagula, and abortion took place five weeks after the first flow.

Subsequently to this event there were weekly returns of uterine hæmorrhagy, which continued

for about two days, and then ceased again to recur, after an interval of about five days.

Before and after the abortion, Mrs. —— experienced much tremor, faintishness, and fluttering, and was unable to bear any noise or cause of hurry. These symptoms were aggravated more and more at each recurrence of the haemorrhagy, which was always preceded by tumidity and a sense of fluttering about the abdomen, and by a peculiar inability to bear any noise or hurry, which always induced the feeling of approaching dissolution ; after the loss of blood, there were also severe pain of the forehead, and palpitation of the heart, with tendency to syncope, chilliness, sense of want of air, &c. These symptoms became more and more distressing and serious at each return. The feeling of impending dissolution was so dreadful at length, that, as the patient expresses herself, not only noise and hurry, but even thinking was too much for her ; and the subsequent affection of the head, &c. became very alarming.

I saw Mrs. —— on February the 22d. She then complained of severe pain and heaviness of the head, with vertigo on raising herself from

the pillow, of deafness, with a humming noise and beating in the ears, and of dimness of sight. She had been very wakeful; but on falling asleep, at any time, she awoke hurried, alarmed, and overcome, and experiencing a sense of dissolution; or if she continued to sleep, she was much disturbed by frightful dreams. She had much palpitation of the heart, with fluttering, and a very irregular and intermittent pulse; these symptoms were so much aggravated by any noise or disturbance, as to induce the feeling of impending dissolution, or as the patient expresses it, of 'instant death.' There was also great tendency to syncope, requiring the window to be opened, the face to be washed with vinegar, and the smelling bottle to be applied to the nostrils; other odours, however, could not be borne. There was no nausea or sickness. The bowels had all along required purgative medicines, and the alvine evacuations were copious, dark-coloured, and foetid. There was much loud rolling of the bowels. No pain of the side, or uterine region. There were great pallidness, and loss of flesh.

The affection of the head and other symptoms

were not only aggravated, but distinctly reproduced, by each return of flooding, and the patient was always enabled to foretell the recurrence of hæmorrhagy, by her feelings of internal abdominal fluttering and fulness, and the effect experienced from noise and disturbance.

I prescribed a lotion consisting of two drachms of the sulphas zinci dissolved in sixteen ounces of water, to be inserted by means of a scroll of linen, into the vagina ; purgative medicines, and the saline effervescing mixture. The lotion suppressed the hæmorrhagy, of which she had only one recurrence, and she recovered most speedily and favourably.

Mrs. ——, aged 24, was affected with continued and profuse uterine hæmorrhagy after delivery, for many weeks. The countenance became, in consequence, extremely pale and exanguious, as well as the hands and general surface ; the pulse became frequent, and bounding ; the head affected with throbbing pain, and, afterwards, the heart with beating, the action of the carotids being very evident to the eye, and to the finger ; the tongue was furred, and affected with large and prominent papillæ ;

and the alvine evacuations were very foetid. Mrs. —— recovered much from taking opiate and aperient medicines, and on being allowed a little ale.

In this state of convalescence, Mrs. —— was extremely alarmed and agitated, by the occurrence of a storm of thunder and lightning, and became affected with excessive diarrhœa, hurry, and palpitation of the heart, the pulse being too frequent to be counted, and threatening of dissolution. This state was relieved by opiates.

On the succeeding day the countenance was again exanguious, the pulse extremely frequent, the carotids beat violently, and there were great hurry, faintishness, and debility; the appetite, which had previously returned, again failed; the bowels were open; there was pain from retention of urine; no uterine discharge.

From this time Mrs. —— recovered favourably and permanently, on using the same medicines as before.

The cases which have been now detailed, will sufficiently display the usual symptoms and effects of loss of blood, in the puerperal state, and demonstrate the danger, in different cases, of mis-

taking these effects for inflammation, or disease, of the brain, or heart, according as the symptoms affecting the former or latter organ, may predominate. The first will strongly illustrate the danger of drawing a wrong inference from the effects of blood-letting in such cases ; for the symptoms were all relieved by this measure ; but its repetition was attended by some alarm, if not hazard. This case illustrates another point, which is, that leeches applied to the temples may relieve and be admissible, when general blood-letting is inadmissible. It is further to be observed, too, that the application of leeches to the temples was not followed by the same degree of re-action as the blood-letting ; so that, in this respect also, they formed the appropriate remedy. The second, and especially the third of these cases, strongly exemplify the symptoms of affection of the heart arising from loss of blood.

I now propose to detail the principles of the treatment in cases of the effects of loss of blood in the puerperal state.

In the first place, the state of exhaustion from loss of blood, with or without re-action, by no means precludes the possibility of congestion

within the head.* And it is no less certain that the application of leeches to the temples, or of the cupping glass to the back of the neck, relieves the symptoms of affection of the head, arising from loss of blood, in a remarkable manner. In a case given by Mr. Hey†, which I regard as being of this character, and to which I shall have occasion to revert hereafter, urgent symptoms of affection of the head were twice relieved by the abstraction of but three ounces of blood from the temporal artery. This mode of treatment must not therefore be neglected, except in the most extreme cases, in which the loss of even so small a quantity of blood, and that from the head even, might precipitate the remaining powers of the patient.

The next point of practice which requires to be mentioned is the state of the stomach and bowels. If these were free from all disorder before the occurrence of the loss of blood, yet the state of exhaustion ever induces a deranged state of the alimentary canal. The

* See Part First, p. 75, *et seq.*

† On the Puerperal Fever, p. 86.

state of the bowels must, therefore, claim our attentive consideration in every case of symptoms arising from loss of blood. Their functions and tone must be carefully restored by every means in our power, while we as carefully avoid any fresh source of exhaustion. The bowels must, in particular, be carefully evacuated daily. This may perhaps be best done by means of the warm water injection, so often recommended in this work already, with or without the aid of a draught containing an ounce of the infusion, and two or three drachms of the compound tincture of rhubarb, and of manna.

By these means, the state of irritability which is so apt to affect the system, and especially the head, and the heart, in cases of exhaustion from loss of blood, is greatly obviated. But, for this affection, it is frequently also necessary to give some mild but efficient anodyne. The *tinctura opii*, the *tinctura hyoscyami*, the *spiritus ammoniæ aromaticus*, &c. are extremely useful remedies in this affection. But perhaps the best are the *liquor opii sedativus* of Battley, or the extract of poppy, given in efficient doses.

When the head, the heart, and the alimentary

canal have been thus relieved, and even during the exhibition of the medicines which have been enumerated, it is of the first importance to attend to all the following points: viz. nourishment, fresh air, quiet, soothing, sleep, &c.

It is difficult to give any rule for the administration of nourishment. But the first rule is to ascertain that the bowels have been properly evacuated; otherwise food will only oppress the stomach; the second, is to give the nourishment itself in such forms as will prove light and easy of digestion; the third, is that it should be taken at first very slowly and in small quantities. Arrow root done in water, beef-tea, panado, sago, &c. may be given frequently.

The best restorative we possess, is, I believe, fresh air; but it is especially the best, in the cases under consideration. The warmth and closeness of a lying-in-room, must therefore be forthwith exchanged for free ventilation, only observing the due precautions against giving cold.

Nothing is more essential than quiet, both of body and mind. Bodily exertion leads to still further exhaustion, and perhaps even to un-

expected dissolution. And every kind of mental effort or hurry, not only exhausts the patient's strength, but is extremely apt to lead to those attacks of symptoms of irritability, of which I have given so full a description.

The patient should be soothed and lulled in every possible way ; and it is of the utmost importance to procure sleep. But it should be observed, in regard to sleep, that too long a sleep is apt to exhaust or overwhelm the patient. This is especially true, if it be not preceded by nourishment. The sleep is also apt to be injurious by leading to turbulent dreams, which have the same bad effects as waking hurry of mind ; the sleep should, therefore, be watched, and it should be interrupted if the patient is observed to suffer from agitation ; this is best done, I think, by offering nourishment, for the patient is immediately collected, on awaking, from knowing what is doing.

There is one point which I have not hitherto mentioned as it deserves. It is the efforts made by the parent to suckle her infant. Nothing is so injurious in *all* puerperal diseases. These morbid affections have often appeared to be first

induced by the attempt to nurse ; and they have still more freely been exasperated by it. This attempt especially involves, within itself, almost every thing which can be injurious in a state of exhaustion ; the drain, the muscular effort, the mental excitement, implied in the act of suckling, are all of the most injurious tendency in this affection.

CHAPTER VII.

OF MIXED CASES; OF PUERPERAL MANIA; OF THE
DIAGNOSIS; AND OF THE TREATMENT.

PERHAPS the cases which most frequently present themselves to our notice in practice, are of a character distinct from those which have been described in the three preceding chapters, differing from them principally by blending two, or all three, of those cases, in an individual patient.

Our systems of nosology have, I am persuaded, greatly erred, in attempting to separate diseases from each other, and describe them as distinct, when they far more frequently occur in conjunction; so that the mind of the medical student is not at all prepared for the cases which most frequently occur to him when he first enters upon practice. A little experience teaches him the difficulty, nay, the absurdity, of attempting to give each individual case a name, or to

put it down in a list of diseases. Each patient, on the contrary, presents to him a new congeries of symptoms, a new complication of diseases or disorders.

To apply these remarks to our present subject, it may be truly said that puerperal cases are more complicated than any. But I have already sufficiently insisted upon this point in the first chapter of this part of my work. And I now proceed to illustrate the various combinations of inflammation with intestinal irritation, or of either, or both, with the effects of loss of blood.

Some cases have conjoined the most decided symptoms of intestinal irritation with those of inflammation, and having proved fatal have presented all the traces of inflammatory action, on examination. It has already been shown, that in many cases of inflammation, there are none of the symptoms which denote intestinal irritation ; there is an absence of rigor, of heat, of affection of the head, &c. But the effects of inflammation are found on dissection. On the other hand, there have been all the symptoms of intestinal irritation, as rigor, heat, head-ach, with pain, tenderness, and tension of the abdomen,

without a trace of the effects of inflammatory action on examination after death. The conclusion from these separate statements is obvious; inflammation and intestinal irritation may exist separately; — but they may also exist together.

The effects of loss of blood are frequently observed in cases of inflammation, when the primary disease has been perfectly subdued. But they are still more apt to concur and to assimilate themselves with those of intestinal irritation, when there has been much loss of blood by hæmorrhage or by blood-letting.

I propose to illustrate this subject immediately, as well as the interesting question of the diagnosis, by a reference to the valuable treatise of Mr. Hey, upon puerperal fever. This author, as well indeed as almost every writer upon this subject, appears to me to have combined in one description, all the three different cases of which I have treated. It is not, therefore, wonderful that their works should involve many inexplicable discrepancies in the symptoms and in the treatment. Some cases have occurred without rigor, heat, or head-ach; others have combined all three, with or without great affection of the

abdomen. Some have been cured without the lancet; others have not yielded to the most judicious and most ample blood-letting. It is doubtless a most important question, how can these discrepancies be explained?

Other difficulties and other discrepancies have arisen from the addition or superinduction of the symptoms of loss of blood, in cases of inflammation, or of intestinal irritation. This is a mixed case which very frequently occurs, and causes much embarrassment to the young and inexperienced physician. And it has too frequently happened, that the lancet has been prescribed under a false impression of inflammation, and that great danger, and even immediate dissolution, have ensued.

There is a mixed case which shows itself under a still different form, from any which have hitherto been described: — it is *puerperal mania*. I believe this disease to result, in general, from all the circumstances following parturition combined *; but chiefly from the united influences of intestinal irritation and loss of blood. I pur-

* See Chapter III.

pose to pursue this subject hereafter. In the mean time, however, I would observe, that I am persuaded that real puerperal phrenitis is comparatively a rare disease, — that puerperal mania is seldom of an inflammatory character, and that it is, especially, to be treated by those measures which are suited to the mixed case of intestinal irritation and exhaustion. This opinion is confirmed by the fact of mania occurring from undue lactation, as well as from the circumstances of the puerperal state. I am inclined to attribute much more to the combined influence of irritation and exhaustion, than to the mere "state of the sexual system which occurs after delivery," which has been assigned as the chief cause of this morbid affection by Dr. Gooch, in a most interesting paper upon this subject, in the sixth volume of the Transactions of the College of Physicians, p. 280., — although I would by no means exclude the influence of this principle altogether. There is ample evidence, in Dr. Gooch's cases, of the influence of intestinal disorder; and the events of labour, and the circumstances of lactation, ever add to this a state of exhaustion. This view is the more important,

because it directly suggests the proper mode of treatment, which consists in restoring the system to a state of due health by every means in our power, whilst we adopt every measure which can soothe and allay the morbid irritability of the nervous system.

I am confirmed in this view of the nature of puerperal mania, not only by a careful investigation of its causes, and the good effects of the remedies which I have mentioned, but by having met with the symptoms of intestinal irritation described in chapter V., as a prelude to those of mania. The following interesting case will illustrate this point.

Mrs. —— was well, except a little cough, during the whole course of her pregnancy. Labour-pains commenced on Saturday, at three o'clock in the afternoon, and continued trifling for 24 hours; they then became severer, and continued so until Tuesday afternoon; at this time, the pains became severer still, and remained so until her delivery at midnight, when she was greatly exhausted. There was no serious flooding or bowel-complaint; and Mrs. —— continued to do well until Friday, about 50 hours after her

delivery ; at that time she became affected with severe pain of the head, with great beating, and noise, and great intolerance of light and sound, and dozing, interrupted with much starting. She was better the succeeding morning, but became very much worse in the afternoon, with the same pain of the head, and other symptoms as before ; the pain was extremely severe, and she passed a restless night. I saw Mrs. — the next day, Sunday ; she was then affected with great pain of the head, some delirium, and occasional attempts to get out of bed ; intolerance of light, noise, and disturbance, and a very frequent pulse, from 130 to 140 ; there was a feeling of sinking ; starting, and alarms, and frightful visions on closing her eyes or falling asleep, with a mixture of delirium and consciousness of delirium.

This state continued until Wednesday and Thursday ; on the former day, there was some delirium and much purging ; on the latter, continued and violent delirium, with crying and tears, and a constant desire to get out of bed ;— an entire absence of rest and sleep had obtained for five days. Leeches, and purgatives, and

anodyne draughts of the usual strength, had been employed in vain, the symptoms having much increased in violence every day. On the evening of Thursday, a dram of *tinctura opii* and of the *spiritus ammoniæ aromaticus* were given, and repeated in the night, and snow was applied to the head. This induced a profound and quiet sleep, with only a little starting on awaking ; she awoke, indeed, free from delirium, and much refreshed, and the pulse was less frequent. The draught was repeated on Friday at bed-time. The pulse continued to diminish in frequency, and the symptoms to subside, from this time ; the flow of the lochia and of the milk was natural. Once, in the course of this case, there were pains and some tenderness of the lower part of the abdomen, which were effectually relieved by a fomentation and an ammoniacal liniment.

I shall never forget the astonishing effect of the ammoniacal opiate draught prescribed on the Thursday, after the effectual evacuation of the bowels. I would remark, that the awaking from sleep, in this case, was sometimes so frightful, that the patient would almost jump off the

bed ; and had her sleep and awaking not been carefully watched, it seemed probable that she might even have expired.

Other cases begin in this manner, but go on to a protracted length.

There are frequently many of the appearances of disorder of the general health described in the former part of this work ; sometimes jaundice even ; and the state of the complexion, and of the alvine evacuations, leaves no doubt as to the influence of the morbid condition of the intestinal canal. Blood-letting plunges the patient into a state of danger, perhaps into one of irretrievable sinking. I leave this interesting subject to be discussed upon some future opportunity, earnestly recommending to the reader, in the mean time, the study of the paper already quoted, by Dr. Gooch, and especially the following observation :—“ If every patient who has fever, is furious, and shrinks from a candle, is judged to labour under phrenitis, mania will be mistaken for it, and, what is worse, mistreated.”*

I now return to the consideration of some of

* Transactions of the College of Physicians, vol. vi. p. 279.

the cases detailed in the treatise upon puerperal fever, by Mr. Hey.

The first case which I shall quote, is one of pure puerperal inflammation of the abdomen. It is highly important, by illustrating the facts, that this species of inflammation may be set up without being attended by rigor, heat of surface, great frequency of the pulse, or affection of the head.

“ Mrs. S—— was brought to bed on the 5th of July, 1810, about nine o’clock in the morning. In her former labours she had been subject to a relaxation of the uterus after delivery, which usually occasioned a considerable flooding. Her discharge, at this time, was copious; but, being aware of the tendency to hæmorrhage, I was able, by suitable means, to keep it within moderate bounds.

“ On the following day, at three o’clock in the afternoon, I was called to her in haste, on account of an excruciating pain which had suddenly seized the abdomen. It continued for half an hour without remission; but, before my arrival, it had ceased. As the pain was not preceded by rigor, and the pulse was not acce-

lerated, I could not conclude the case to be one of puerperal fever ; and therefore satisfied myself with prescribing an opening medicine, and requesting to be sent for immediately, if the pain should return.

“ Having heard no more from the patient, I visited her late in the evening ; and then found that the pain had returned, but with a less degree of severity ; and, having had regular remissions, it had been mistaken for the common after-pain, and had therefore created little alarm. The abdomen had become very tender, and the pulse frequent.

“ No doubt now remained on my mind of the nature of the disease ; and, though the attack was less distinctly marked than in most of the cases which I had seen, my later experience warrants me in concluding, that the disease would soon have proved fatal, had not vigorous means been employed to check its progress. As night was approaching, I feared to wait till the symptoms became more urgent ; and, therefore, notwithstanding my reluctance to copious bleeding was not quite overcome, I immediately took from the arm a large basin full (about

twenty ounces) of blood, and directed a continuation of the purgative. A cathartic clyster was also injected. The pain was diminished, while the blood was flowing, and on the following morning it was nearly gone; the fever had also greatly subsided. The bowels had been freely evacuated, yet I thought it advisable to maintain the purging undiminished for another day; and then it was suffered gradually to abate. The patient recovered without further complaint.

“ Thus was an immediate stop put to the disease, which, had the bleeding been omitted, or deferred until morning, would, in all probability, have been irremediable. For though the first attack was, in some respects, less alarming than in many other cases, yet its early period, the severity of the pain, the consequent soreness of the abdomen, and the rapid increase of the pulse, clearly point it out as a genuine, and not a very slight case of the prevailing epidemic. Perhaps the previous hæmorrhage might, in some degree, have obviated its violence.” *

It is a dangerous opinion, that puerperal inflammation of the abdomen must be ushered in

* Pp. 91—94.

by rigor,—must be attended by great fever. This disease is often insidious; it frequently begins with slight rigor, sometimes with no rigor at all. And violent rigor, and great heat of surface, frequency of pulse, and affection of the head, denote the addition of intestinal irritation to the state of inflammation. I beg to repeat, that an accurate examination of the abdomen can alone establish a correct diagnosis of the latter disease; to which must be forthwith added an investigation of the powers of the system to bear blood-letting, of the effects of a free evacuation of the intestinal canal, and of the condition of the alvine discharge.

The next case which I shall transcribe is an example of intestinal irritation, and not, I believe, of inflammation.

“ Mrs. N——, residing at a solitary house in the country about three miles from Leeds, was brought to bed in the night of the 7th of February, 1810, after a short and easy labour. She was a middle-aged woman, and had borne many children. On the ninth, I gave her a gentle laxative, which had the desired effect. On the morning of the tenth, I found her sitting

up to suckle her child ; she seemed unusually well, and so she remained till the end of six days.

“ 14th. I was called up at one o’clock in the morning to visit her, and was informed that, having gone to bed quite well, she was seized at eleven P. M. with a shivering fit, which was succeeded by a great degree of heat, and pain in her body (shooting also into her hips and thighs) resembling labour-pain, but continuing without any perfect intermission. She complained also of much pain and throbbing in her head. Though the heat had begun to abate before my arrival, the skin was still hot and dry ; but soon afterwards a profuse perspiration succeeded. The tongue was furred and very white ; and the pulse beat at the rate of 150. The breasts were flaccid, and I desired that the child might not be allowed to suck. The abdomen did not show any tenderness upon pressure. The lochia had returned afresh on the preceding morning, and in the evening she had had a natural and easy stool.

“ The want of success which had hitherto attended the treatment of the disease, induced me immediately (though it was night) to consult

with my father on the management of this case. We were satisfied that no remedy had done so much good as purging, yet it had not proved sufficient for the cure of the disease. We therefore thought it proper to add such means as might tend to allay the local irritation, without much interfering with the operation of purgatives. With this intention, we ordered a draught with rhubarb and tartarized soda, of each a dram, to be taken immediately; a small clyster with forty drops of tinct. opii to be injected; a large blister to be applied to the abdomen; and a saline draught to be taken every two hours.

“ Half past two, P. M. The pain had somewhat abated before the medicines arrived. After the injection of the opiate, it had gone off entirely, and had not returned. A slight vomiting had come on after taking the purging draught, and probably a part of it had been rejected. A degree of chilliness succeeded by heat had returned about one P. M. Pulse at 126. I prescribed the following mixture;

R. Sod. tartariz.—mannæ, $\frac{a}{a}$ $\frac{3}{3}$ ss.

Tinct. senn. $\frac{3}{3}$ ij.—Aq. fervent. $\frac{3}{3}$ ij.

Sumat tertiam partem alternis horis;

and ordered a domestic clyster to be injected. I took off the blister, which by mistake had been applied to the back.

“ Nine, P. M. Two doses of the mixture had been taken, and had procured three loose feculent stools. A degree of nausea had once been felt after taking some broth. Pulse at 134.

“ 15th. Half past one, P. M. The patient had passed a very comfortable night, and had slept a good deal. She remained free from pain and soreness in the abdomen ; and the secretion of milk seemed to be returning in the breasts. The tongue was cleaner. Pulse at 104. She had had one copious stool of solid fæces in the night, but none since that time. The saline draughts were ordered to be taken every four hours, and the purging mixture in such doses as to keep open the bowels ; also a clyster to be injected in the evening. A table spoonful of wine in gruel was allowed to be given now and then.

“ 16th. The injection had produced two plentiful stools containing large lumps of solid fæces. The patient complained of more pain in her head, and her tongue was furred. Pulse at 96. The medicines were ordered to be continued ;

another clyster to be injected in the evening ; and the feet to be immersed in warm water.

“ 17th. Four, P. M. Notwithstanding a pretty good night, she had not been so well this morning. The pain in her head continued ; and she had several times experienced an acute shooting pain in the region of the uterus, which did not remain, but had produced some degree of soreness in the abdomen. She complained of thirst ; the tongue was a good deal more furred, and the pulse at 104. Several loose evacuations had taken place in the preceding evening, but none after nine o’clock.

“ Ordered the opening draught to be given immediately ; and the clyster in the evening, if the draught should not operate before nine o’clock. The patient having taken a dislike to the saline draughts, the carbonate of potass with lemon-juice, to be taken in a state of effervescence, was substituted in their place.

“ 18th. The opening draught and injection had failed to operate. The abdomen was distended and hard, but not painful. Some degree of nausea had come on in the night, but had not produced vomiting. The skin was cool and

pallid. The tongue was covered with a brown fur, and the pulse was at 112. A repetition of the clyster and opening medicine was directed.

“ Six, P. M. A copious stool had been obtained, containing a good deal of mucus; and much flatus had been expelled per anum. The abdomen was soft, easy, and considerably reduced in size. Countenance good. Pulse 114.

“ 19th. The patient had passed a very good night, and was in all respects better. The pain in the head and abdomen, and the enlargement of the latter, were quite gone. The fur of the tongue was coming off, and the pulse was at 98. A clyster had been injected, and had procured a proper evacuation.

“ About noon, she was seized with a cold fit, scarcely proceeding to a rigor, which was succeeded by great heat, a very frequent pulse, and pain in the head. A second clyster was injected, which operated and gave sensible relief. I ordered an opening draught to be taken in the evening, and the clyster to be repeated if necessary.

“ 20th. The draught and injection had both been given, and an evacuation procured by each

containing lumps of hardened fæces, which had the appearance of having remained in the bowels for some time, and had probably been the cause of the cold fit. The head was quite relieved ; the fur was cast off from the tongue ; and the pulse was reduced to 90. As there was some appearance of languor, a table spoonful of wine was directed to be taken frequently in some nourishing liquid.

“ 21st. No complaint, except soreness of the tongue and fauces, which were affected with aphthæ.

“ On the 22nd, the patient having been rather longer than usual without a stool, was again attacked with chilliness succeeded by heat, but in a much less degree than before. She was relieved by an injection ; but this attack occasioned her a restless night.

“ From this period, she recovered without any relapse ; but was some time in regaining her usual strength, on which account she took various tonic medicines.” *

In this case there were, at first, rigor, a great degree of heat, a white and furred tongue, a pulse

* Pp. 70—76.

of 150, much pain and throbbing in the head, whilst the abdomen was free from tenderness on pressure. On the second day, the abdomen was still free from pain. On the third, large lumps of solid fæces had been passed, and there was more pain of the head, but still none of the abdomen. On the fourth day, an acute shooting pain in the region of the uterus is first noticed; on the morning of the fifth, the abdomen was distended and hard, but not painful, and in the evening, soft, easy, and considerably reduced in size. On the sixth day the pain and enlargement of the abdomen were quite gone; in the evening, there were rigor, great heat, frequency of the pulse, and pain of the head; these were greatly relieved by a clyster, and on the succeeding day the patient passed lumps of hardened fæces, which had the appearance of having remained in her bowels some time.

In addition to these observations, it is to be particularly noticed that this patient recovered from this violent attack of puerperal disease, without the use of the lancet.

I should be afraid of being charged with colouring, if I had given such an account of a

case of puerperal disease. No one can fail to observe the entire difference between this and the former case, in every particular. The symptoms are totally different; those of the former illustrating admirably the case of rather insidious puerperal peritonitis; those of the latter not less forcibly, the severer attack of intestinal irritation. The treatment demonstrates the same thing: it is all but impossible to imagine that such an attack should yield without the most active blood-letting, had it, indeed, been inflammatory. Many other patients had died under the neglect of this all-powerful and all-essential remedy of inflammation. Why should this patient escape?

The last case which I shall adduce is not a case of inflammation, nor purely of intestinal irritation, but affords an example of intestinal irritation with the effects of loss of blood.

“ June 18th, 1810, I was sent for to Mrs. B—, a stout middle-aged woman, living at a little distance from the town, who had born several children, and was then in labour. The early part of the labour proceeded quickly, but the pains declining in strength, the latter part

was slow. The placenta separated spontaneously, and was expelled by the natural efforts; but the uterus did not contract well afterwards, which occasioned too great an effusion of blood. However, by keeping up a compression with the hand on the fundus uteri for about an hour, the hemorrhage was considerably restrained, and I left my patient apparently doing well.

“ In about an hour, I received an urgent call in consequence of a fainting; and found the uterus much distended with blood. I removed the coagula from the vagina; and, by gently stimulating the os uteri with two fingers of one hand, and compressing the fundus with the other, a good contraction was produced, and the hemorrhage ceased. The patient remained languid, but had no more fainting. Pulse 120.

“ 19th. No complaint but languor arising from the loss of blood. Pulse the same.

“ 20th. The strength had improved, but the pulse had rather increased in frequency. Ordered a gentle laxative.

“ 21st. Eleven, A. M. The laxative had procured three good evacuations, two of which were loose. The pulse had come down to ninety-

six, and was full and strong. I observed the tongue to be dry in the middle.

“ Three, P. M. Not long after my visit in the morning, the patient had been affected with a slight chilliness, which was succeeded by heat, vomiting, and a continued, though not violent pain in the abdomen. She complained of soreness when the abdomen was touched; and the uterus, somewhat enlarged, was distinctly to be felt above the pubes. The skin had now become cool. I directed a purging clyster to be injected immediately, and a saline mixture to be taken every two hours in a state of effervescence.

“ At this time I had not seen Dr. Gordon’s Treatise on the Puerperal Fever of Aberdeen; for it was not much known in Leeds. But I had read the short account of it contained in Thomas’s Modern Practice of Physic; and the last case which had occurred to me, having exhibited evident marks of acute inflammation, I was strongly inclined to make trial of bleeding. This inclination was strengthened by reflecting on the small success which had hitherto attended all other means; and still

more so, by the consideration, that purging, the other principal remedy of Dr. Gordon, was the only one from which I had seen clear and decided advantage. Unfortunately the present case was not favourable to the trial, the patient's strength having been previously reduced by a profuse hemorrhage. No time, however, was to be lost ; I determined therefore, to repeat my visit soon, and to be guided by circumstances.

“ Five, P. M. The clyster had been given an hour, and was still retained. The vomiting had not returned. The pulse was at 112 ; and as it was by no means a weak pulse, I determined to take a small quantity of blood from the arm, and to observe its effect. I took away seven ounces, and also applied a large blister to the abdomen.

“ At Eight, P. M. my father visited the patient with me. She had parted with an astonishing quantity of fæces mixed with mucus. The pain came on at intervals, like after-pains ; and was very moderate in the remissions, when she lay quite still upon her back ; but the least motion of the body occasioned great uneasiness. The blood exhibited a very thick inflammatory crust,

and the crassamentum was remarkably firm. The pulse was 130, and hard. Under these circumstances, it was judged proper to repeat the bleeding to the same quantity.

“ Ten, P. M. The second quantity of blood was not covered with so thick a crust, but the crassamentum was still more firm than the former. It was like a piece of liver; I could scarcely pierce it with my finger. The pulse had come down to 120, and was more full. She was lying upon her side, which she had not been able to do before, and was quite easy when at rest. She had complained all the day of great thirst. The tongue was clean, but still dry in the middle. A saline draught was ordered to be taken every three hours, and, as she had had several more loose stools, thirty drops of tinct. opii were added to the first.

“ 22d. Throughout this day the pains were slight and distant, and their remissions almost complete, so that the patient could bear to take her nourishment sitting up in bed. The tongue was moist and clean. Some opening medicine being necessary, a dose of rhubarb and calomel was given, and the clyster repeated. By their

joint operation a surprising quantity of fæces was again discharged in the evening. The pulse was below an hundred in the morning, and in the evening at 116. As she had perspired a good deal, and appeared languid, the saline draughts were directed to be made with an ounce of decoct. cinchonæ. The anodyne was repeated.

“ 23d. She had passed the night without any pain, notwithstanding which she had slept but little. Pulse at 110, and very strong. No more stools : clyster repeated.

“ Having augured favourably of this case from the gradual and complete cessation of pain, it was with no less surprise than regret, that, in the evening, I found an entire new train of symptoms. The patient having been affected throughout the day with an irresistible propensity to sleep, from which she got no refreshment, awoke in the evening with pain in her head, accompanied with giddiness and ringing in the ears. Her face was flushed: her pulse at 132 and strong. She had had three loose stools, and had parted with a large quantity of urine. Some leeches were ordered to be applied to the tem-

ples; but finding, on a second visit, that they had not been procured, I took three ounces of blood from the temporal artery. The saline draughts were directed to be made without decoct. cinchonæ, and a blister to be applied to the nape of the neck. Just before the bleeding, the pulse was at 120, after it at 112.

“ 24th. I found the patient sitting up in bed to take some refreshment. She had slept several hours in the night. Her countenance was good. It was rather singular, that the left side of the head, from which the blood had been taken, was easy, but the opposite side painful. The crassamentum, as before, was extremely firm. Pulse 126. I took three ounces of blood from the temporal artery of the right side, and the evacuation greatly diminished the pain.

“ In the evening she experienced a seizure somewhat similar to that of the preceding day. Having been visited by several friends, who had inconsiderately talked and read a good deal to her, she was suddenly affected with a sense of great confusion and noise in the head, accom-

panied with much heat and flushing of the face. Pulse 140. In consequence of the relief before experienced, she was very desirous to lose some more blood from the temples, and therefore, though the pulse appeared less strong, I took an ounce and a half from the temporal artery.

“ The case having become more alarming by this relapse, a consultation was requested ; and a physician who had attended several of these melancholy cases with me, was called in ; my father also visited the patient with us. The pulse had come down to 120, and was evidently fuller since the bleeding. The crassamentum was as firm as before. It was agreed, that the saline draughts should be continued, that a blister should be applied to the head, and the temples and forehead be frequently bathed with cold vinegar and water.

“ 25th. Eight A. M. She had had no sleep in the night, but her head was rather more composed, and she was free from heat. Pulse 116. Some indications of a paralytic affection were now apparent. She faltered in her speech, and her tongue when put out, was drawn to one

side. At noon the pulse got up to 140, she took little notice, and though she sometimes spoke coherently, an answer to any question could scarcely be obtained from her ; her mind also appeared much agitated.

“ At four P. M. the physician met us : it was agreed that a little wine whey should be given frequently, and the following medicine was prescribed ;

R. Spt. æther. comp. gutt. xxx.

Spt. ammon. comp. gutt. x.

Aq. puræ ʒiss. M.

Fiat haustus tertiâ quâque horâ sumendus.

A draught with fifteen drops of tinct. opii was also directed to be taken at bed-time.

“ 26th. The night had again been passed almost without sleep ; but the head was free from pain, confusion, and the sense of ringing. Pulse 116.

“ Two, P. M. After three hours comfortable sleep, the head was not so well. The bowels were open, and the stools natural. Pulse 120.

“ 27th. I was not able to see the patient myself on this day, and I neglected to minute any account of its occurrences.

“ 28th. She had had no sleep in the night, and was very restless, with some degree of delirium. We found her incessantly talking, but could procure no answer from her to any question that was proposed. She refused all medicine. Pulse 120.

“ In the course of the day the abdomen became tumid from flatus confined in the bowels; the tumefaction was unattended by pain or soreness, and entirely subsided as soon as evacuations were procured by an injection.

“ Ten P. M. She was in all respects worse. Her urine came away involuntary; she had some rattling in her breathing, and appeared to be sinking. Pulse 132. Thirty drops of spt. æther. sulph. were ordered to be given now and then as a grateful cordial.

“ 29th. We were agreeably surprised to find our patient much better. During the night she had been able to retain her urine, and had made a large quantity with proper intervals. She was quite sensible, and more composed; and had regained the power of putting out her tongue, which before she had lost. The pulse was at 106, and the tongue continued clean. Ordered

to take at regular intervals a draught of infus. rosæ made with decoct. cinchonæ, and to have occasionally a little Madeira wine.

“ These favourable symptoms did not long continue. In the evening the pulse had got up to 120, and the heat had increased.

“ From this time the patient became gradually weaker, her pulse was accelerated more and more, and her urine was again discharged involuntarily. She lived two days in a state of great anxiety and increasing restlessness, and died on Sunday night the 1st of July.

“ This case appears to me an instance of a remarkable metastasis of the Puerperal Fever; and had the disease been transferred to a less vital organ than the brain, a more happy crisis would probably have been the result. I have before mentioned that, at Aberdeen, the disease was not unfrequently transferred to the surface of the body, producing an erysipelas on the extremities, which proved a “ certain sign of a salutary crisis.” And the transition of inflammatory affections of various kinds from one part of the body to another, is a fact well known in the practice of physic. In the case just related,

it is observable, that, while the inflammation of the abdomen subsisted, the head was free from all complaint; and that, as soon as the inflammation was completely removed from the abdomen, to which it never in any degree returned, the head became affected with symptoms of inflammation, accompanied with evident marks of compression of the brain.

“ Whatever other conclusions may be drawn from this case, the entire removal of the abdominal affection, and the appearance of the blood, which was of a firmer texture than any I had ever seen, both tended to confirm me in the propriety of bleeding in the disease under consideration.” *

I believe there was not inflammation of the abdomen, in this case, although I do not mean to express myself positively upon this point. But I am perfectly convinced that the disease consisted, chiefly, in the effects of intestinal irritation and of loss of blood. The attack was ushered in by rigor succeeded by heat; there was the evacuation, first, of ‘an astonishing quantity,’ and on the succeeding day, of ‘a surprising

* Pp. 81—91.

quantity' of fæces, and a 'complete cessation' of the pain of the abdomen. On the third day an event occurred which is exceedingly common in cases of intestinal irritation and of loss of blood, namely, an attack of affection of the head,—pain, with giddiness, and ringing of the ears, the face being flushed, and the pulse frequent. A similar seizure was repeated on the succeeding day; there was 'a sense of great confusion and noise,' accompanied with much heat and flushing of the face. Afterwards, there were indications of a paralytic affection, an event which sometimes occurs in exhaustion from loss of blood.* In a day or two more, there were restlessness and incessant talking; and 'in the course of this day the abdomen became tumid from flatus confined in the bowels, the tumefaction being unattended by pain or soreness, and entirely subsiding as soon as evacuations were procured by a glyster.' This patient rallied a little on the succeeding day, and became 'quite sensible and more composed;' — but few patients, under such circumstances, recover from a 'rattling in the breathing,' a symptom which had been re-

* See the Medical Essays, p. 68.

marked the day before, and which, if accurately observed in its very commencement, is amongst the first, if not the very first, of the fatal symptoms in sinking from loss of blood. *

I would here make one remark in regard to the metastasis which was supposed to take place. Of this I am persuaded, that, in many such instances, that which has been supposed to be metastasis of inflammation, was, in fact, but the wonted effects of intestinal irritation, and of loss of blood, upon the functions of the brain, or other organ, of which so much has already been said in this work.

This case, then, beautifully illustrates many points of high practical importance. First, although there were three good evacuations on the twentieth, of which two were loose, they did not prevent the evacuation of an astonishing quantity of fæces on the twenty-first, and again on the twenty-second. In the second place, on the evening of the twenty-third, there was one of those sudden changes and reverses, which I have mentioned as so apt to occur in these cases ; there

* See the Medical Essays, p. 51, &c.

were pain in the head, giddiness, and ringing in the ears. In the third place, it is to be remarked how small a loss of blood, taken from the temporal artery, relieved these symptoms; this very fact proves them not to have been inflammatory. In the fourth place, we have an illustration of the sad effects of the injudicious visits of friends; to this circumstance I should be apt to ascribe the fatal issue of this case even. In the fifth place, we have an example, first, of paralysis, and, then, of incessant delirium, from exhaustion, so often mentioned already in this work; see pp. 75. 243. In the sixth place, we observe the supervention of rattling in the breathing, and of flatulent tumidity of the bowels, as symptoms of the sinking state. Lastly, we are taught not to be too much buoyed up by hope, from an apparent amendment in this state of exhaustion and sinking, a point to which I have particularly alluded elsewhere.*

It may not be amiss, in this place, cursorily to repeat the principles of the treatment in these puerperal diseases.

* Medical Essays, p. 83.

And, first, in regard both to pure inflammation, and pure intestinal irritation, the first measure, should be to place the patient upright and bleed her until she faint. It may be said, then, that the treatment is the same in both these diseases. This is by no means the case. And the difference is this. If the disease be inflammation, perhaps twenty-five or thirty ounces of blood may be taken before the patient turns faint; but if it be intestinal irritation, a much smaller loss of blood will lead to deliquium. And now the vast importance of taking blood, in the upright posture, is obvious,—not for the sake of producing syncope merely, but with the object of being guided, also, as to the quantity of blood which should be drawn.

The next thing to be done, especially where comparatively little blood has been taken, is, fully and freely to evacuate the bowels,—and attentively to inspect the alvine discharges. This object should be effected by first administering about three pints of warm water, as an enema, and then efficient purgative medicines.

The same principles must guide us on our next visits. According to the state of the

patient, more blood must be taken, or the bowels must be again purged. But here I would observe, that if the case have proved to be intestinal irritation, a repetition of the blood-letting must be instituted with great caution ; for I have known such a repetition prove suddenly fatal, as I purpose to shew in the succeeding chapter.

In regard to the case of exhaustion, I believe that, whenever blood is taken, it should be locally only. The head being usually affected, cupping or leeches are generally to be applied to the temples or back of the neck. It is often astonishing how little abstraction of blood will frequently relieve.

In cases of exhaustion, the bowels are invariably disordered, and flatulent, and either constipated or too relaxed ; efficient aperients must be given ; but the strength must be kept up by light nutriment.

I think it needless to enter more fully upon the subject of the treatment of puerperal diseases, having already discussed it at some length in chapters IV., V., and VI. But I was anxious to present and contrast the different principles of the treatment of inflammation, intestinal irrit-

ation, and exhaustion, in this place, in order to prevent the possibility of misconception, and to simplify the subject as much as possible for the general practitioner.

In drawing these observations to a close, I would refer the young clinical student to an interesting case, published in the Edinburgh Medical Journal, for July 1824, p. 53, and to some remarks made upon it in the London Medico-Chirurgical Review, for January 1825, p. 243. Like the observations contained in the present chapter, they greatly illustrate the diagnosis of puerperal diseases.

CHAPTER VIII.

CASES OF THE FATAL EFFECTS OF BLOOD-LETTING IN
PUERPERAL AFFECTIONS.

No one can charge the plans of treatment proposed in the foregoing pages*, with indecision or inefficiency ; and I am persuaded, they are equally free from the opposite imputation of rashness and undue activity.

In order, however, that no caution may be wanting to guide the young physician in the treatment of puerperal diseases, and in order that the full value of the mode of proceeding which has been recommended, and the precautions which are necessary in carrying it into effect, may be felt, I think it right to adduce, in this place, several cases of the fatal effects of inconsiderate blood-letting, in puerperal diseases.

These cases illustrate several points of great practical importance : and first, the danger of the repetition of the blood-letting, in cases which have been relieved by previous remedies, as a

* See pp. 188—190. ; 219, 220. ; 243. ; 282—285.

preventive merely ; in such cases, all inflammation, if it existed, having subsided, a chief source of safety in the use of the lancet, as well as of the necessity for it, is removed, and the patient will be very apt to fall a prey to the further loss of blood. This is exemplified in the first and second cases about to be adduced. In the second place, I consider the particular danger of an unguarded use of the lancet, in cases not inflammatory, to be exemplified in the third case, which was clearly one of intestinal irritation, and not of inflammation. The last case is a sad instance of an inconsiderate blood-letting, and it is to be hoped that few such examples have occurred, although, I confess, that in the prevailing mania for blood-letting, even such cases should not greatly surprise us.

The first of these cases presents the phenomena of a rather gradual sinking, from a fatal blood-letting.

Mrs. —— aged 30, had been affected with what appeared to be a slight attack of influenza ; she was seized with rigor, and soon afterwards the pains of labour came on, and issued in delivery in about fifteen hours, at nine o'clock A. M.,

which was followed by much fever, the countenance being flushed, the pulse frequent, and the breathing difficult with incessant cough ; these symptoms increased towards evening and in the night, and about forty ounces of blood were drawn from the arm at two bloodlettings, and the next morning twelve leeches were applied to the chest, with great relief. In the evening a blister was applied.

The night was passed more comfortably ; she dozed a little and was cheerful, and continued relieved in the morning. As a preventive against a relapse, however, three teacupfuls of blood were taken. The patient became faint during the flow of the blood, — sank from that time, and never again rallied ; she became extremely feeble and could scarcely articulate, and from being cheerful the day before, was now impressed with the conviction of approaching dissolution, and expressed herself as unable to recover from the last bleeding. During this day, Saturday, and during the two succeeding days there was a state of extreme exhaustion, — and still a sense of load at the chest, and pain of the side.

On the Tuesday the countenance was observed sometimes to flush to a deep scarlet, and then to become quite pallid, and a profuse perspiration frequently ran down the face; the pulse was extremely frequent, and the pain severe on coughing; there was no delirium, though she awoke hurried from sleeps which she described as 'just like death.'

During the four following days there was little obvious change; distressing faintings usually came on about two or three o'clock P. M. On the Sunday she became drowsy, and evidently more sinking; this state continued to increase, and she died in the evening of the succeeding day.

The following case presents an example of the fatal event supervening immediately on the use of the lancet.

Mrs. —— was of a pale and sallow complexion and weakly constitution. Six days before her confinement of her first child, she was awoke in the night by severe pain of the head confined to one spot. This pain continued several hours, when Mrs. —— applied to her accoucheur; she was completely relieved by losing sixteen ounces of

blood followed by purgative medicine, and she continued well.

Mrs. ——'s labour occurred on September the 1st, 1817, and was rather tedious, but natural, and she had no complaint until the second day, when she experienced a second attack of pain in the head, but less violent than the previous one. She was seen six hours after this attack ; she then complained of pain and beating of the head, about the anterior part of the right parietal bone ; the skin was hot, and the pulse frequent and strong. — Sixteen ounces of blood were taken from the arm, leeches ordered to be applied to the temples, and an enema and purgative medicine were prescribed.

In three hours' time Mrs. —— was again visited, and it was deemed necessary to abstract more blood. — Six or eight ounces were therefore taken ; — faintishness was induced, — and the symptoms were little abated.

On the succeeding morning, September the 4th, the symptoms still remained the same ; the surface was hot ; the bowels had been purged, and the evacuations were natural. — The saline mixture was ordered. — At noon the symptoms

remaining as before, the purgative medicine was repeated and a blister was applied. — In the evening, the evacuation of the bowels was satisfactory ; the pain of the head was not severe, but there were much beating and a rushing noise ; there was restlessness ; and a teasing, irritative cough. — A draught with thirty drops of the *tinctura opii* was administered.

The next morning, September the 5th, Mrs. —— expressed herself as being much better from having enjoyed comfortable sleep. The surface was still hot, and the head still affected as before. In the evening, there was a degree of tenderness in the region of the uterus ; she dreaded the idea of being bled, from the faintness she had before experienced from it, and said it would certainly kill her.

On the morning of the 6th, the pain in the region of the uterus was relieved, the head was affected as before, the window was kept open for want of air. In the evening Mrs. —— complained of being faint and low. A mixture with camphor and sulphuric æther was prescribed.

On the 7th, the irritative cough again occur-

red ; the pulse was frequent, from 120 to 130 ; and the other symptoms remained unabated. A physician was consulted. Sixteen ounces of blood were directed to be taken from the arm ; a grain of calomel was given every three hours, and the effervescing medicine was ordered.

On the morning of the 8th, Mrs. —— appeared to be relieved in every respect ; the heat of surface and the pain of the head were diminished ; the blood presented the buffy coat. It was thought proper to abstract more blood, as the last bleeding had apparently conferred benefit, and had been borne better than the preceding ones. Four tea-cupfuls of blood were taken ; the most dreadful fainting followed, with gasping, open mouth, and a convulsive action of the diaphragm, and in an hour or two death closed the scene.

In the third case which I adduce here, the fatal event was equally sudden.

Mrs. ——, aged 33, weakly, was confined of her sixth child, after an easy labour, without flooding, at midnight on the 20th July, 1818. During the ensuing day all was well. The lochia were natural ; there was no alvine evacuation,

but the bowels had been open during pregnancy, and twice evacuated during labour.

On the morning of the 22d, Mrs. —— took half an ounce of the oleum ricini ; and at four in the afternoon this medicine was repeated, the first dose having produced no effect ; this, however, induced violent purging, occasioned great fatigue, and caused the patient to complain much. At ten o'clock in the evening, Mrs. —— was seized with rigor, which was violent and continued more than an hour ; this was followed by great heat of skin, with wakefulness, restlessness, anxiety, sighing, and moaning.

At ten on the succeeding morning there were great heat of skin, and pain at the bottom of the back. Four teacupfuls of blood were taken from the arm. The symptoms still continued, and at seven in the evening, three teacupfuls of blood, and at eleven three more, were taken from the arm, and twenty leeches were applied to the region of the uterus for the increased pain. The pain still continued to increase, with restlessness, sighing, faintishness, constant necessity for the smelling bottle, and apprehension of impending dissolution.

Afterwards the symptoms being unabated, a physician was consulted. — About three o'clock, three teacupfuls of blood were again taken from the arm, and leeches again ordered to be applied ; an enema was given, which evacuated a quantity of fæces quite unexpected.— In a short time Mrs. —— became cold, and the surface clammy, with fainting, gasping, breathing, &c. and all was done to restore warmth. After an interval of three hours the pain was still great. Some opening medicine was prescribed. But the state of sinking continued, — the smelling bottle, the fan, and fresh air were urgently called for. All the symptoms, except the pain, were aggravated, there were gasping, a slight convulsive struggle, another, and the patient expired.

In this case it will be observed, that the pain remained unabated, even after the last fatal blood-letting. I have reason to regard this, as denoting not an inflammatory origin of the pain, but the presence of morbid alvine contents.

I give the last of these cases without comment. For I should be sorry to diminish the impression which it is calculated to make upon

the mind, by any observations; and I am persuaded, that no addition can add force to the plain and simple detail of its fatal issue.

Mrs. ——, aged 35, was confined on the 5th of December, 1818, at midnight, of her eighth child. She was delicate, but in good health, and the bowels were regular. The labour was favourable, but during the first six and thirty hours, lingering; the after pains and lochia were natural.

Mrs. —— appeared well on the 6th, and had had a good night; but she complained somewhat of the noise in the house, saying that it hurried and disturbed her.

On the morning of the seventh, she took an opening draught. This induced two unsatisfactory evacuations, with great and continued nausea without vomiting; for this nausea she was ordered a cordial draught. Soon after taking the draught, Mrs. —— was seized with shivering. About eight hours after this, she was found complaining of pain in the region of the uterus. Three teacupfuls of blood were taken about seven o'clock in the evening, and about half after nine four more; fomentations, &c.

were used in the interval. During the night, Mrs. —— was extremely restless, tossing about, wakeful, or with a little dosing, some delirium, and hurry and starting on awaking ; there were dimness of sight ; cold clammy perspiration and great coldness of her feet ; sighing breathing and moaning, fainting, and the necessity for being fanned. There were ten motions during the night.

The next morning Mrs. —— was again, as it were by infatuation, bled to three teacupfuls. This measure was followed by paleness, coldness, cold clammy perspiration, gasping, sighing breathing, and restlessness. A physician was consulted. The pains and tenderness had subsided ; but the patient remained in a state of great lowness. Mrs. —— was again visited in the evening, and wine whey, &c. were prescribed. In the night Mrs. —— dosed, and awoke alarmed ; all at once the eyes became fixed, with gasping and sighing, and she expired.

I would merely add, that such disastrous events could not have occurred, had the safe, and simple, and efficacious rules which have been laid down *, for the use of the lancet, been implicitly adopted.

* See p. 286.

CHAPTER IX.

OF EPIDEMIC PUERPERAL FEVER; AND OF SOME LOCAL
AFFECTIONS.

I SHALL do no more than enumerate the subjects to which I refer in the title of this chapter. For it would occupy too much space, for the limits of the present work, to treat of them fully.

Of epidemic puerperal fever I have only to observe that, I think, in every account which has been published of it, different puerperal diseases have been blended together; and especially that, amongst the real cases of epidemic puerperal fever, sporadic cases of peritonitis, of intestinal irritation, and of loss of blood, have been given.

The great questions of contagion, of the influence of the state of the atmosphere, of the pathology, and of the treatment, still remain, not satisfactorily determined.

The local affections to which I have alluded, are erysipelas, gangrene, purpura, inflammation of the vein, destructive ophthalmia, suppurative inflammation of the cellular substance, &c.

Of erysipelas, and gangrene, and purpura, some account will be found in every treatise upon puerperal fever. It has been mentioned that the case detailed p. 205. terminated by inflammation of the vein. Of the destructive ophthalmia, and diffuse inflammation and suppuration of the integuments, I have published a detailed account in the Transactions of the Medico-Chirurgical Society, volume xiii. p. 189.

My only object in noticing these morbid local affections, at present, is to propose them as subjects for renewed inquiry, especially in regard to their causes, pathology, and mode of treatment. The state of the atmosphere appears to have a great influence in inducing these affections; but the condition of the general health is, doubtless, their more immediate cause.

CHAPTER X.

OF THE EFFECT OF PREVIOUS DISORDER OF THE GENERAL HEALTH, UPON THE STATE OF THE PATIENT AFTER DELIVERY.

THIS is a most important and interesting question, and it has two bearings: the first, upon the parent herself, the second, through the medium of the milk, upon the infant. I chiefly allude, in this place, to those forms of disorder of the general health of which I have attempted a description, in the first part of this volume.

Such a state of disorder, especially if long continued, and attended by much pallor or pale icterode hue, involves in itself a state approaching to that of loss of blood; and it has been sufficiently shown, that this form of general disorder itself depends upon a deranged state of the functions of the intestinal canal and of the other digestive organs; so that it is obvious that such a condition, before confinement, predisposes to the effects of intestinal irritation, and of exhaustion.

I need not remark how important it is, in such cases, to devote an especial attention to the restoration of a healthy state of the system. The state of the bowels should be watched daily, a mild but invigorating diet should be enjoined, and the tonic effect of gentle exercise in the open air, should be secured during the whole period of pregnancy, — for conception is not generally prevented by this state of disorder of the general health.

In extreme cases, the bowels become exceedingly loaded, and there is a state of the system approaching to bloodlessness. In neglected cases of this description, death has quickly and unexpectedly ensued from a far less shock than that of parturition. In other cases a series of painful symptoms has ensued which have perhaps exhausted the patient finally, though more slowly ; of this, the following is a most interesting example.

Mrs. —, aged 28, had long had all the symptoms of disorder of the general health, with a pale icterode hue of the complexion. For some time before her confinement, she suffered from aphthæ, with irritability of the stomach and

bowels, and there was some œdema of the ankles and of the face.

After delivery there was a considerable flow of lochia; the tendency to diarrhoea continued, with light yellow foetid stools; and the pulse was frequent. The countenance was extremely pale; and there were great pain of the head, fluttering, and tendency to faintishness.

Soon after delivery, the aphthæ, which had somewhat disappeared, were again observed on the inner part of the under lip, in the form of vesicles clustered together, and one or two were situated on the tongue, which was clean and pallid. The face was pale, the prolabia exanguious; there was repeated bleeding from the nose, the blood becoming pale and aqueous; there was frequent pain of the head; the pulse was frequent,—often 110; the bowels loose. She was much relieved by taking the *tinctura opii*, pure opium, the *pilula hydrargyri*, &c.

On the 24th of May, 1819, twenty days after delivery, and after a gradual amendment for a fortnight, she experienced in the night, a fit of palpitation of the heart, which, however, soon went off.

On the 26th, Mrs. — had taken a little mutton, and her room was particularly close ; under these circumstances she became affected with great anxiety and agitation, an overwhelming internal feeling not to be described, and tendency to fainting, all increased on attempting to be moved ; the pulse was small, and 156 ; the heart, carotids, and indeed, the head, chest, and bed-clothes, were affected with throbbing and palpitation. Thirty drops of the *tinctura opii* were given, and repeated with great relief.

The next day, the 27th, the pulse continued at 132, and the movement of the heart, carotids, head, chest, and bed-clothes, was still great ; the pulse was fuller, the general expression and feelings more tranquil. There had been some sleep ; but on awaking, there was a temporary confusion of mind. The bowels had been gently moved by the Rochelle salt.

On May the 30th, the symptoms remained nearly the same. The pulse 140 ; the beating of the carotids still visible ; the palpitation greatly increased, and faintishness induced on moving. The countenance was pale, and rather tumid ; the tongue and teeth appeared as if be-

smeared with syrup, and the breath had the odour of new milk ; the bowels were confined ; the urine plentiful. No tenderness of the abdomen, cough, or head-ach, or tendency to complain.

May the 31st. A mild purgative and an enema were administered yesterday, and evacuated large portions of hardened fæces, after which a draught with thirty drops of tinctura opii was given. The pulse fell to 100 ; and all the symptoms were mitigated. In the evening the pulse was about 104 ; there was still a little throbbing of the head, but the palpitation and beating of the carotids, were much diminished ; the bowels unmoved to-day ; urine plentiful ; fluent catamenia. No pain or tenderness of the abdomen.

June the 3d. Since the last report, there have been repeated attacks of sickness and vomiting, with more throbbing of the head, carotids, and heart ; and the alvine evacuation has been occasionally costive. To day, the countenance is pallid, and more swollen with œdema ; there is throbbing at the occiput, with pain, and beating of the heart and carotids ; a degree of labour in

the breathing, and cough ; tenderness of the epigastrium, sickness, and constipation. The manner appears rather changed ; speaking requires greater effort ; there are greater hurry and exhaustion ; and greater repugnance to food and medicine.

June the 7th. Since the 3d, the principal symptoms have been sickness and vomiting, medicine having been quite rejected, and sometimes food. There have been once or twice deep breathing, and a sort of blowing, apparently implying a sense of want of air ; there is an occasional hacking cough ; some throbbing of the head ; the pulse has been from 100 to 110. The countenance is pale, but the lips have a little more colour. There is much loss of flesh. The bowels have been kept open ; the appetite is better. There has been good sleep.

June the 8th. The countenance is much as before ; there is less throbbing in the head ; no delirium ; pulse 108 and rather irregular ; some sighing and deep breathing, — hacking cough, — sickness and vomiting ; some tenderness of

the right hypochondrium, and beating of the abdominal aorta.

June the 9th. Less throbbing of the head; pulse 116; much pulsation over the aorta; the sickness has recurred several times.

June the 10th. This evening there is increased sickness, with dyspnœa, consisting of deep, sighing breathing; pulse 120; the throbbing, palpitation, and pulsation of the abdominal aorta, are less; no cough noticed; the sickness continues; the bowels open twice.

June the 11th. The deep breathing has been very urgent. The nose is cold and livid; the lips dry; the eyes deathly; the pulse 100 and feeble. Mrs. —— expired on the 12th about 2 P. M.

On examination, on the 13th at noon, three or four ounces of water were found in each cavity of the pleura, and one ounce in the pericardium. In every other respect, the thoracic and abdominal viscera, were most healthy. The heart, the stomach, the bowels, and the liver, were free from the slightest appearance of disease. The uterus was collapsed to its natural size.

This case may be taken, instar omnium. In many others, such an event has been prevented by a timely and appropriate attention to restore the general health.

It may happen that the patient was not known to the physician before the period of her confinement. It will then be found important to have studied the external characters of disorder of the general health, as they are given in the first part of this work, and especially the appearances of the complexion, and of the tongue, pourtrayed in Plates IV. V. VII. II. and III., the state of the alvine evacuations, &c. ; and much will, of course, be ascertained by a careful inquiry into the history of the case.

It is of the utmost importance to conjoin aperients with a cordial and nutritious kind of diet. For I am persuaded that the strength is far more apt to fail in these cases, than is generally imagined, and especially in that variety which is attended by extreme pallor, which, in fact, denotes a state approaching to bloodlessness and exhaustion.

The next point to be mentioned, is the influence of a morbid condition of the general health, upon the secretion of the milk, and upon the health of the infant. It has frequently occurred to me to lament that patients have given up all hope of ever being allowed to nurse, from the sad consequences produced upon the infant. This circumstance generally depends upon disorder of the general health of a protracted kind; and it is obviated by proper and persevering efforts to restore the functions to their natural state.

It may be necessary for the infant to be fed, or to have another nurse, if these precautions were not enforced before the approach of confinement; for time is required to subdue the disorder, and change the secretions. But if there be space for effecting the due changes, the plans which have been already recommended for restoring the general health of the parent, will always succeed in enabling her to nurse without disordering her infant.

END OF PART SECOND.



